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ORIGINAL ARTICLES.

MALARIA, AND THE CAUSATION OF FEVER IN THE STATE OF NEW YORK.

Read in the Section on State Medicine at the Thirty-ninth Annual Meeting of the American Medical Association, Cincinnati, May, 1888.

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It may be premised at the outset that, in this State, as throughout the United States, the most numerous of all diseases, after the communicable diseases common to childhood, are those attributable to malaria, but owing to the relatively low rate of mortality in this class of diseases, as a whole, in this latitude, and to the almost total neglect of morbility statistics, it is impracticable to give even an approximate estimate of the number of cases Moreover, as *the* cause of fever, though secondary in its etiological relations but primary in its importance, no conditions which give rise to disease of any kind have been so long recognized and continuously urged by the physicians of the State as preventable, as those which give rise to malaria and, consecutively, to malarial fevers. Notwithstanding, the same relative prevalence, and well-nigh the same generally recognized conditions which give rise to malaria continue to obtain now as they did at the beginning of scientific inquiry into the causes of disease in this State fully three-quarters of a century ago.

It would be a comparatively easy matter to make a volume of no mean dimensions out of the reports of committees and other contributions to the Transactions of the Medical Society of the State of New York from 1807 to the present time, containing material which would compare favorably with the best literature of the subject anywhere to be found. For example:

John R. B. Rodgers, M.D., President of Society in 1814 in his annual address of that year remarks, that intermittent and remittent fevers "arise from a change made in the qualities of the air, or the production of new materials in the atmosphere, arising from the application of long-continued heat on animal and vegetable matter in a state of decomposition."[1] The "new materials" of Dr. Rodgers are now called germs. And, as a description of the conditions which give rise to malaria, we know of nothing more perspicuous, more in accord with the present state of knowledge on the same subject, or more worthy of being proclaimed from the housetops than the following extract from the annual address of Alexander Coventry, M.D., President of the Society in 1824. He remarks:

"On my arrival in New York, in 1785, I found the whole space between the east side of Broadway and the river was vacant; it was a sandy soil with a gradual descent to the west, at whose foot the tide washed a sand and gravel beach; this shore, when fanned with the exhilerating westerly breeze which had swept the surface of the noble Hudson, might have been selected by Hygiea as her chosen abode. The citizens of New York at that time bore in their faces the bloom of health, and no signs of endemic disease were discernible in their looks.

"Ten years afterwards my business called me to the Capital, but the change I found in the looks of the citizens astonished me. Those living near the docks and wharves, indeed along most of the streets along the East River, had the pale, sallow look, the yellow skin and muddy eyes with which I had become familiar in the lake country during the preceding four years. The inhabitants bore the marks of endemic disease, and on inquiry I found that the disorder that raged in the city had been accompanied with the same symptoms as that which prevailed in the country. A most intimate friend then resided in the lower part of Pearl Street; he had lost a son and daughter and barely survived himself, while his eldest daughter who had nursed her relations had escaped the fever.

"Although there was neither swamp nor marsh, yet sources of disease were not wanting where vessels formerly lay. I found spacious streets and elegant houses, slips and basins filled up, and many acres gained from the sea and converted, as I was informed, not into dry land, but a mass of putrefiable stuff with which the most noxious swamp in Genesee could not compare. The North River side, where encroachment had not commenced still remained healthy and proved a safe retreat for the afflicted citizens.

[1] Transactions of the Medical Society of the State of New York, 1807–1831, p. 61.

"In the Spring of 1820 I was again in the city, and witnessed the improvements going on on the West side, the consequences of which became visible in 1822. Had the bank of the North River been left as it was originally the tide would have removed all the filth brought down the cross streets and all the sugar boxes ever brought from Havana would never have infected a spot large enough for a mosquito to alight on.

"In the country it often requires years, sometimes ages to conquer the source of disease, for vegetation annually supplies the pabulum. In cities, provided their location be favorable, it is man who works his own destruction, first by his improvidence, next by his negligence. . . .

"The records of medicine abound with the most indubitable facts of the dreadful effects arising from the decomposition of animal substance. The wise Romans preserved the ashes of their ancestors in beautiful urns, and perhaps this was a mode preferable to resigning their remains as a prey to the worm and a poison to the living. The delicate Hindoo ascends the funeral pyre of her husband. Custom is everything. The Chinese find the most valuable manure in what with us is a great nuisance. The formation of poudrette, as practiced in France, would fertilize our fields and be a valuable relief to the inhabitants of cities. Pure and good water from a distance would be a grand desideratum. The filterings used in the city are extremely offensive, especially to the stomach of a stranger. One ounce of prevention is better than a pound of cure. Probably before the commencement of another century the Island of Manhattan will be thickly covered with human inhabitants. He whose patriotic endeavors would ensure health to such a number of fellow creatures would be more worthy of a monument than the proudest hero of the age, aye, if we may believe the Roman orator, he would approach nearer the divine nature. *Homines enim ad Deos, nulla re, propius accedunt, quam Salutem hominibus dando.*"[2]

Such observations have not been improved upon during the sixty-four years that have intervened, but all along during the period the medical topography of the State and the conditions of endemic fevers have been among the most constant subjects of investigation and report by the members of the State Medical Society, yet never more completely than twenty-eight years ago, by the late Joseph M. Smith, M.D., in his "Report on the Medical Topography and Epidemics of the State of New York," to the American Medical Association. (Vol. 13, pp. 83–269.)

On the organization of the State Board of Health, in 1880, "Malaria and Preventive Measures against it," was one of the first subjects to engage the attention of the then Secretary, the late Elisha Harris, M.D., who remarks in his first report:

[2] Opus Cit., pp. 270–271.

"The reports and various complaints concerning malaria and the local sources of miasmatic diseases outnumber all others received at the office of this Board. The local conditions which are accused as the immediate causes of the evils thus complained of may be summed up as consisting of undrained wet grounds, stagnant pools and partially dried swamps and ponds and unsewered or badly sewered premises. The most obvious fact is that drainage and sewerage for health do not yet appear to be the first object which local authorities have in view in this class of public works, and the rules and regulations they enforce concerning them. This is true alike in cities, villages and the rural districts." (P. 20). In his third annual report, (1883, p. 40) he remarks:

"The localities of paludal malaria, and the extent to which miasmatic diseases prevail cannot be ascertained from the records of death, but from reports of sickness; yet the total mortality from the miasmatic fevers and other kinds of disease from the same class of causes is considerable. The special sources of these diseases abound in the large cities as well as in the regions of drying swamps and stagnant ponds, or undrained basins and water-soaked grounds. The local suffering from malaria is often found to exceed even that which, from other causes, is attended by great mortality. In some instances the increase and persistence of malaria breaks down the health of many families, discourages enterprize, and drives the thrifty classes and their business to more healthful localities."

The foregoing quotations are made, not because they contain anything new, but because the truths which they express continue to be the most important subjects which sanitarians and health authorities can urge upon the civic authorities for the prevention of disease. During the last four or five years considerable headway has been made in the State, under the auspices of the State Board of Health, in arousing the attention of local authorities to the importance of sanitary economy, and there is reasonable ground for hope for continued and increasing progress in this direction

"Just what groups of signs and symptoms are accepted as evidence of the influence of malaria," it is somewhat difficult to define, but, in general terms: *most* fevers caused by malaria are in their types intermitting, or paroxysmal, and remitting or exacerbating, and hence are properly designated *periodical*. But the exceptions to this definition are by no means rare.

From somewhat extensive observation in regions exceptionally prolific in periodical fevers, I have sufficiently often witnessed the prevalence of *endemic pneumonia* of a peculiarly acute and fatal type to satisfy me of its malarial dependence. Such cases are usually ushered in with a severe chill, intense headache, delirium, rapid pulse, high

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temperature, overwhelming pulmonary engorgement and fatal termination within four days—and sometimes within forty-eight hours—without any remission. Moreover, I have observed cases of approximately similar character in relation with domiciliary conditions and localities, especially foul cellars and cellars exposed to gaseous emanations from foul soil surroundings, insomuch as to be fully satisfied in my own mind that a very large percentage of the numerous deaths from pneumonia in the winter time, among children and other persons mostly confined to indoors, in the colder regions of the United States—in the country as well as in cities—is due to malaria and preventable by sanitary measures.

Other exceptions are found in persistent chronic congestions of the liver and spleen, resulting in dropsies, and congestion of the spinal meninges, giving rise to the persistent pains, aches and neuralgias common to the inhabitants of most malarial regions and domiciliary abodes, such as those indicated, and more or less proportional with the extent of the conditions.

Dengue, too, may be mentioned as a generally recognized distinct type of malarial fever, with exceptional symptoms, mostly limited to regions where the conditions which give rise to malaria exist in greatest intensity.

With regard to your final propositions—"What *is* malaria" and "what evidence is there for or against a malarial germ?" The correct reply is yet to be discovered.

The practical conclusions deducible from the foregoing summary are:

1. Malaria is coincident with accumulations of organic matter in process of putrefaction in alluvial bottoms, on the margins of sluggish streams, low humid borders of stagnant ponds and lakes, the marshy borders of the sea-shore, and *circumscribed local conditions*, chiefly artificial, comprehending more or less the same relations to vegetable debris and other organic matter in process of decay as the outlying conditions mentioned in this connection.

2. While it is not possible in the present state of our knowledge to determine the special relations existing between malarial diseases and the geological, thermal, hygrometrical and barometrical conditions under which they occur, those thermal and hygrometrical conditions most promotive of putrefaction coincident with the absence of sunlight are in the highest degree promotive of malarial poison.

MEDICAL gentlemen desiring to become members of the Association, can do so by securing the endorsement of the President and Secretary of the local society to which they belong, and enclosing the application with the membership fee ($5), to the Treasurer, Dr. Dunglison, lock box 1274, Philadelphia, Pa.

SOME RESULTS OF EXCESSIVE CONSERVATISM IN THE TREATMENT OF DISEASE IN LARGE JOINTS.

Read before the Philadelphia County Medical Society, Oct. 24, 1888.

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The very admirable "Contribution to the Study of Excisions of the Large Joints" read by Dr. John Ashhurst, Jr., on the first day of the recent meeting of the American Surgical Association in Washington, D. C., and the interesting discussion of its various points, participated in by the many distinguished members of the profession, including the great men who were present from abroad, have given fresh zest and interest to the whole subject. In his paper Dr. Ashhurst confined himself, "particularly to the operative method, the after-treatment, and the functional value and limitation of applicability of excision in the case of each articulation." Drs. Lewis A. Sayre, of New York, R. A. Kinlock, of Charleston, S. C., T. F. Prewitt, of St. Louis, Mo., F. S. Dennis, of New York, Frederick Lange, of New York, John E. Owens, of Chicago, and Sir William MacCormac, of London, are mentioned as taking an active part in its discussion.

Neither the author nor any of these gentlemen referred to the proper times or indications for resorting to such operative procedures. It is true, Dr. Ashhurst did say that in "his excisions of hip-joints at the Children's Hospital, Phila., the rule is not to operate except in otherwise hopeless cases," and Sir Wm. MacCormac said he had heard with some surprise that "the tendency here seemed to be to postpone excision of hip-joints until all other measures had failed," and that, "in England the disposition is to perform the operation at an earlier period." So, also, Dr. Lange, of New York, referred to a class of cases in which the disease began in the tissue outside of the joint, the articulation becoming involved at a later stage of the affection. In these cases he recommended "early operation with the hope that in this way necessity for opening the joint would be avoided."[1] But it is much to be regretted that we did not get more definite information all around on the point.

The most recent surgical writers on the subject to whom we can refer as well posted authorities at the present time, would all seem to agree that operative procedures of the character of excisions are not to be resorted to until there are evidences of absolutely destructive disease, going on in the joint properly speaking, such as of the synovial membrane indicated by roughness and impaired motion associated with severe pain there, aggravated by efforts to produce such, or by succussion

[1] These quotations are all from the proceedings at Washington, D. C., published in "The Journal of the American Medical Association" for Sept. 29, 1888, Chicago.

in the joint by jarring on the remote extremity of the limb, and, where there are much distension and signs more or less positive of suppuration in the cavity ; also, where there are fistulæ in communication with that cavity associated with exhausting discharges of offensive fluids and particles of dead bone, and the detection, by probe, of bare bony surfaces belonging to the joint proper and so shown to be more or less definite and extensive in their nature. These are, however, no more positive or distinct in their limit, than what have been implied by the author and those who discussed his essay. We may, indeed, fairly inquire whether further conservatism as to this subject is not what is going to prove by its results the greatest skill and science in our noble calling.

A vast majority of the successful excisions of the large joints, require considerable time for the completion or perfection of their cures, and some cases have to go, as Dr. Ashhurst states, through a repetition of the operation, and, then with greater danger to life, before the desired end is attained. Even with the best results from excisions of joints, the limb as left, is not what could be wished for, and is certainly a constant source of lamentation to a laborer, whether a man, a woman, or a child; either in high, or, in low life, who carries it.

With these thoughts in my mind, I am tempted to show here this evening some of my efforts at greater conservatism than is encouraged by any authority, feeling assured that the thorough exhibition of them will do more than words to prove their advantages. To make this exhibition as thorough as possible, I shall, for the want of time, limit it to that of only three cases—one of the hip, one of the elbow, and one of the wrist. They are all at present within my reach to show you, and are to be taken as representative cases of the results I have been having in my treatment—now for nearly twenty years—and which has been with earth dressings as the essential part.

In all my cases I have never refrained from employing anything that would seem to meet any indication in each instance as that of a sedative, tonic, stimulant or eutropic. Thus these three cases belong to a group in which I have made other topical applications as direct as possible to the seat of the disease at the times when I was about to renew the earth dressings, and which applications I expected would be of service in aiding the dissipation or action to be caused by the earth. In them I made application of the gases generated by "Bergeon's apparatus for treatment of Phthisis," directly to the parts, however, by means of inverted funnels or rubber bags which could be made to hold the gases on the localities desired. The funnels being used only at the shoulders and hips, and the bags with two large orifices like elastic knee-caps, for the elbows and knees, and those with one opening, ordinarily to be found in the rubber stores, large enough to be drawn up over the extremity and some distance above the diseased part, for the wrist and the ankle. These rubber bags are all quickly filled by the distributing tube of Bergeon's apparatus inserted under their orifice, and when well distended the tube should be withdrawn and the gas left in contact with the part for fifteen or twenty minutes each time. The inverted funnels on the hip and shoulder do not answer the purpose so well, nevertheless, the gases can be made to penetrate the parts through them as can be demonstrated by the application of strips of test paper (saturated with acetate of lead) on the face, nose, armpit or inside of thigh, whilst such gases as carbonic acid, and sulphureted hydrogen are being forced through them on to the integuments, making the application of the paper always at as remote a point as possible from where the funnel is being pressed, so that the demonstration of the chemical change in the paper will be more apparent. The resort to this use of the dissipating and disintegrating powers of gases, was first suggested to my mind by the demonstrations of Bergeon's uses of them in phthisis, made by our esteemed president, Prof. J. Solis-Cohen, at the German Hospital in the Spring of 1887.

Case 1.—Disease of hip-joint 1½ inches shortening ; cure complete without any shortening, deformity or lameness.

On the 29th of June, 1886, when visiting Mrs. —— for rheumatism, I noticed her grandson, aged about nine years, come cautiously into her room with a decided hitch in his gait, evidently walking on the toes of his left foot, and on asking what was the matter, got the answer: "Oh! nothing but a bruise on his thigh whilst romping with some of his playmates in the neighborhood." "Well then," said I to his mother, "You had better put on him some of the earth" (which his grandmother was using with much satisfaction). I saw nothing more of the boy, but some days afterwards, was told the clay had done him good.

A month later his mother called at my office and said that Harry was still very lame, and they feared something serious was the matter and would like me to call the next day and examine him. This I did, and found him with all the characteristics of hip-disease in its earliest stage, fullness of buttock, flexion of thigh with pain in the front, inversion of foot and disposition to keep the latter in a position so as to prevent any of his weight being brought to bear on the heel. I ordered his mother to have Mr. Gemrig make one of his Thompson hip-joint machines, long crutches, and a three-inch-high sole shoe for the other foot, and while they were being made, he was to keep in bed with that knee supported on a rolled-up pillow. The earth was to be constantly worn by him around about the hip-joint

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as well as on the front of the thigh. He was to have full diet. The boy's age and temperament were very much against his maintaining the rest so ordered. His mother did, however, succeed in keeping the clay constantly on him, and when she saw him on the morning of August 4, 1886, he told her, he had not a particle of pain anywhere about his thigh as heretofore, that it had all gone in the night. But, when she went to renew the clay she found a big lump on that buttock the size of an egg, which was very tender when pressed on. This alarmed her and I was summoned.

On reaching the patient I soon found the head of the os femoris was out of its socket and on the dorsum ilei, and I insisted on the fact that he must have had some other accident than what I had first been led to suppose, I also declared he had not been keeping himself so quiet as I had directed he should. Then I made careful measurements which showed this limb to be actually one and a-half inch shorter than the other. These measurements were made from the umbilicus and the anterior superior spinous processes of the ilei to the tuberosities on the inner condyles of the femur, as also to the internal malleoli. Then, not yet having the apparatus, I applied a thicker (half an inch) layer of the clay over the joint by means of scutetus strips in the groin and on the buttock above the head of the os femoris, so that when dry they would serve to prevent its riding up as much as possible; I also secured greater flexion than before of the knee by binding it on a much heavier pillow.

On my visit the next day I was told it had been ascertained that the boy's injury had been from jumping off the roof of an old abandoned privy-house which was about ten feet high, while playing with his companions the day he first experienced his pain. His fall upon his feet then occasioned him severe pain up through the left thigh, which afterwards became fixed on the front and about the middle of that part. The report of his condition was much more satisfactory than had been anticipated, on this morning. He had rested better, had made no efforts to get out of bed during the night, evidently from having been carefully watched. From then up to the 18th of August (when he received the apparatus), he continued to do well. On that day I put it on, myself, still continuing the applications of clay as before. I ordered a continuance of the clay dressings night and day, never to put the lame foot to the floor, but always using the crutches to get out of bed; also giving permission to leave off the apparatus while in bed.

These instructions however, he did not follow, and finding this to be so at the end of a week, as a matter of discipline I ordered that he should be kept constantly in bed, with the complete dressing on, until the end of August, when he evidently realized that I was determined to make him follow my orders, and submitted. I was glad of this for I was anxious to have him getting about; for two reasons, one, the very hot, close weather, and another, his total freedom from either pain or tenderness by pressure directly in the buttock, both good reasons why he should be out of doors as constantly as possible. The buttock of the lame side was then fuller and firmer than that of the other side, and succussion through its heel several times in rapid succession developed some tenderness in the joint. I then made more traction on this joint through the apparatus than I had been doing before, and finding that such could be done steadily without occasioning any distress, I kept it up until the end of October, when there was no shortening to be detected by me. I then gave him more freedom in going about, without however, making any change in his topical appliance; on the contrary I directed that he should be closely watched to prevent his presuming on his progress. I also then put him on emulsions of cod-liver oil and hypophosphites to prepare him for the near approach of our winter weather. They had a very happy effect, and were continued through the season and until the spring of 1887.

At the beginning of that year, actually on the morning of Sunday, January 2, 1887, knowing that I should find all his folks at home I stopped there to advise with them as to when we were to let him go about without the apparatus. He had then been wearing it constantly for four months and had been two months without a trace of shortening in the limb. He was very impatient to get rid of all his impediments to full and free locomotion. His general condition was admirable, he looked the picture of health, and finding no trace of any trouble about his hip, either as to the condition of its capsule or the relation of its trochanters to the ischium-pubes or coccyx, I then gave him freedom to walk without anything about the joint. He did so, but with a good deal of hesitation, being at first afraid to put his foot upon the floor, then, to bear any weight upon it, and seemed quite glad when I gave him back his crutches. I directed his folks to encourage him all they could after I left, to walk, and his mother to reapply the clay every night at bed-time, and to take it off in the morning when he got up, so that he could use the joint freely through the day. The next day, however, he was on his crutches and went to school with them.

I found he did not make much progress in getting about with all the liberty given him to use the limb. Indeed he limped in a marked manner at the end of the next two months, and a thorough examination developing nothing wrong beyond a want of full tone in the muscles of that limb, I then, in February, began localized electricity both in its primary and induced currents,

to all the parts; which improved them so much that by the end of June there was no appreciable difference between the two limbs; and yet he would at times limp as badly as during the first month after laying aside all its supports. I then used the gases over the joint, by means of the funnel apparatus, with the effect of quickly developing more freedom of motion, and, what I made a memorandum of at the time, of sleeping with the limb flexed and drawn up as he had been in the habit of doing with the other all along. The proper season coming around, his mother took him for a short period to the sea-shore and indulged him in as much bathing as he desired there. When they came back he had still a hitch in his gait, but frequent examinations showed no cause for it other than a nervous habit, and I directed that no further concern should be shown about it. He went to school constantly through the winter (1887–88) and late this spring he went away on a visit into the country in Ohio, where he staid until this autumn, running about constantly barefooted with a companion who was in the habit of doing the same; the effect of which was to cause him to forget all his old ways and to make him free of every peculiarity in his gait.

As can be seen by his photograph taken on the 13th day of this month and also by his own presence, he is now entirely free of any trace of hip-disease or lameness.

Remarks.—The treatment of this case has been of the most satisfactory character. During the whole time, *i. e.*, over two years since it began, it required but little over three weeks detention in bed, and that would not have been necessary if the apparatus had been ready and the patient submissive. On the authority of Mr. Gemrig, the instrument maker, who has had an experience of over forty years in such matters, a cure like it is never seen. He says: "The apparatus is always worn as long as in this case, and where there has been any shortening previously, the patient when cured, has always had to wear some thickness of heel at least on that foot to walk perfectly."

Case 2.—Diseases of Wrist-Joint—Suppuration—Two Fistulæ.—Loss of power in all joints connected with it. Treatment now for over six weeks with dissipation of diseased action, and partial recovery of function.

Owen J. S., æt. 23 years, was injured in July, 1885, whilst working at Plymouth Rolling Mills, Conshohocken. He was at that time taking part in the annealing of a sheet of black-hot iron, and losing his balance, fell forwards, coming with all his weight on said hot sheet, striking it with the palmar surface of his left hand, so extended as to receive the chief part of the force on the integuments directly over the trapezium and unciform bones there. The burn was a deep one; dressed immediately by his companions with white lead and benzine, and he resumed his work as suc men are in the habit of doing, not taking muc account of the accident. He was, indeed, steadil at his work till the end of the year without seek ing any medical advice, although the burn surface had never become firmly healed in tha time.

In the following February, when work wa slack, and he was experiencing constant sufferin in the part, he sought the advice of the physicia of that vicinity, who ordered him a salve whic he continued, as faithfully as is the habit of iro workers, during nine months. In which time th doctor had several times to open abscesse which generally pointed close over the trapezium once he had to run four of such opening into one. The most profuse abscess, howeve was along side the flexor tendon of the rin finger. It discharged steadily for five month after its first opening. During all this perio he was constantly at work, suffering at nigh from pain so that he had often to take morphi for its relief. During Easter this year (1888), h got frolicking with some companions, and struc one in the mouth with the back of this hand Since then it has been much swollen and the sea of much pain.

A month later, after severe rigors and with n abatement of pain in the wrist, he had a numbe of abscesses (4) gather and break in the arm-pi of that (left) side. These were dischargin freely when he first came to me (September 17) He was then much emaciated, looking very dis tressed, and was holding the wrist in position o extreme pronation, with great care by the othe hand. His left fingers were all extended and im movable at their metacarpal joints, the dorsum o the carpus was elevated more than half an inc above its normal position, very pale, somewha bluish in tint, and so tender that he could no tolerate any pressure or manipulation there. Th swelling and width of the joint were such tha the whereabouts of the styloid of the ulna on it side, and that of the radius on its side, could no be determined. The palm of the hand was s much swollen up to the digital joints that I coul not see where the openings from the abscesse had been. There were so much discoloratio and bogginess under the abductor of the thum as to impress me with the idea that there wa deep-seated suppuration thereabouts, but I did no examine it critically either by manipulation o needle exploration, for I wished he should get th full benefit of twenty-four hours wearing of th clay before making such an examination. I therefore proceeded to apply the clay in the for of a paste all over the parts from midway of th fore-arm down to the extremities of all th fingers, and of a thickness of at least half a inch everywhere, surrounding it with a film o cotton wadding. I then applied a roller bandag

or its further retension, and put the fore-arm and and in a sling. This was all done without ocasioning any pain, and I sent him home to reurn next day.

He came the next afternoon looking well leased, and said that he had had a good night's est, but since day-break had been quite annoyed y the traction of the hairs on the parts covered y the clay. This I quickly showed him was he best evidence of improvement in his condition, hat it was the result of marked shrinkage, especially on the back of the hand and fore-arm, fter the dressing had become well set and dried o as to hold on to the hairs there. I indeed had o cut the clay free from those hairs by large issors, and in doing so, showed with them beeath the set clay how much the integuments ad shriveled away from it. After the dressing as so removed, I adjusted a gas bag up over the arts as far as the said dressing had been. This equired some time and great caution to avoid xciting pain. When it was accomplished he ore it without complaint and was pleased with s distension, for it occasioned decided relief all he time it was so left on, a period of twenty inutes, when, as I allowed the gasses to escape nd drew the bag off, I showed him how water ad been formed by them to such an extent as to ow freely off the parts, and he was then able to how me the cicatrices of the openings, formerly n the palm, and which I could not (as stated) ee the day previous. I renewed the application f the clay paste, fixing it this time by a layer of rlatan, and when I got it on I slowly raised his lbow to the level of his shoulder with my right and, whilst I maintained his hand and fingers pparently in their original position of extreme ronation with my left, elevating it however, as I id my right. I then set the hand, wrist and re-arm in this new position, midway between ronation and supination, on a Bond's splint (for acture of the lower end of the radius) and fixed hem in it by some wadding and a roller bandage.

This dressing, as so perfected, was renewed very day after the application of the gases for bout the same length of time on each occasion, o the end of two weeks, that is, until the 21st of eptember, when the shrinkage ceased to be so uch, and the dressing could remain fairly in lace for two days at a time.

During those two weeks the relief experienced y the patient was very constant, and such in the rst four days as to allow him to work in the ill with the right hand every day, and at the nd of that period he could flex all his fingers ut the ring finger, when he had the gases on, nd could endure my manipulation of them without complaint. After the tenth day the styloid f the ulna was readily to be seen, and the point f tenderness manifested only between it and its ide of the radius. All appearances of suppuration or distension in the palm had then gone, and the patient could produce some movements in the extensor tendons of the fingers.

At the end of the third week of my treatment, the tumefaction had disappeared so completely from the dorsum that any one could readily perceive the motion in those tendons of the extensors as he essayed to make them. This was in the latter part of September just past, when everyone here can remember we scarcely ever had a day without rain of a severe character. Like a true rheumatic, he always before those storms experienced pains throughout his system, and especially in his lame limb. I gave him some salol (gr. x doses) to meet those symptoms, and it speedily relieved him.

The local treatment was continued the same for the first ten days of this month (Oct.), being renewed every other day. After that time it was only disturbed twice in the week and on each of those occasions; localized galvanism was passed through all the muscles of the fore-arm, during twenty minutes each time.

The use of the Bond's splint was abandoned on the 16th of this month, eight days ago, and the patient has developed through exercise, considerable power in the parts. I have also during that time given him three applications of galvanism, evidently with benefit.

His photograph was taken the day of his leaving off the splint.

Case 3.—Disease of Elbow-Joint—Suppuration—Seven Fistulæ, Necrosis, and Rigid Anchylosis—Cured with Recovery of the Functions of the Joint.

George R. C., married, æt. 33 years, shoemaker by trade, has been living in S. Camden (Kaighns Av.) for sixteen years. Had two years previous to going there, (eighteen years ago), his right eye destroyed by some lime thrown into it. His health was afterwards good until the early part of March, 1885, when he was taken down with typhoid fever, with which he was ill for nine weeks. He then got about, but soon had a relapse—as it was pronounced—with no trouble in the bowels, but great distress in his breathing, cough and abundant expectoration, the latter symptoms persisting for a full year, associated with general breaking down, so that he was not able to follow his trade during the winter of 1885–86.

In January, 1886, he was seized with pain in his right elbow at its inside, on rising one morning, without any assignable reason, and he supposed from its nature, that he had been sleeping upon it. This pain grew worse, and became so distressing as to prevent his getting any rest for a long time. His family physician saw him on that day, ordered the joint to be painted with tincture of iodine, but not to be restrained in any way. His distress grew worse steadily, and at the end of four months, he sought the advice of

another doctor, who treated the joint by a succession of fly-blisters and poultices, with sedatives and internal remedies for two months, without any abatement of his sufferings. Then, after six months' suffering altogether, he placed himself under the care of another physician, whose directions, he says, he followed faithfully for four months, without any benefit. During the whole treatment of ten months no one had ever put the joint to rest on a splint, or even directed him to keep himself at home. The man was evidently disposed, from his own confession, to be negligent about himself. The last of those who treated him explored the joint by a needle, and decided his case to be, as the patient says, "dropsticuli." Shortly after this the patient had some severe chills, irregular as to time of occurrence, but constantly associated with sweats. These were especially at night, in the beginning of January, 1887, and on the 25th of that month, he first called on me in Philadelphia and gave me this sketch of his case.

His carriage and all expressions gave him the appearance of long suffering and much emaciation, which was aggravated by the condition of his right eye, making him represent very well a case of extreme blood poisoning, such as one sees at an eye-clinic, now and then. He came to me recommended by an old patient of mine, and looked as if he had been some time making up his mind to do so. The whole of this (right upper) extremity, from the insertion of its deltoid down, was much swollen and rigid; the forearm and hand partially supinated, the elbow very distorted and extended, more than thrice its natural size, with many points around it clearly indicating by their elevations and discolorations, the presence in them of deep-seated suppuration, the largest one being down on the fore-arm at the outside and near the point of insertion of the pronator radii teres, a number on the inside, and one above the olecranon on the back of the arm where the exploration had been made by the last attendant he had had. He was evidently much afraid of my hurting him by a thorough examination, and suggested that I should give him a chance for one night's rest before subjecting him to any. This I agreed to, and proceeded to apply a full dressing of the earth all over, of the thickness of half an inch, covered by a split layer of cotton wadding, carefully retaining it by two full length rollers applied from the finger-ends up to the deltoid. This made a firm comfortable dressing for him with which he went away rejoicing, after being told not to take any anodyne to make him sleep, as he had often done by previous advice.

The next morning he reported himself early at my office, looking very different from what he had the day before. He said that after an hour's wear of the dressing, he had been free from pain, had slept very soundly the night through, and when he woke up in the morning, the dressing was all off, but proceeded to assure me that it was no fault of his, as the whole thing had slid down and off his hand while he was asleep, which was in consequence of the shrinkage of the parts on which I had applied it. He had abstained from washing the limb so that any one could see by its color that the dressing had really become detached, and had itself fallen off.

In this condition I had his photograph taken at once, regretting that I had not anticipated such a change by that dressing, and deferred its application until I had secured my negative to represent the original state of the limb, which the picture I got was far from doing. The presence of the yellow clay in the form of a fine powder not only rendered the outline of the limb indistinct, but concealed in the field of the lens, all the points which I had recognized before any dressing was put on by me, as where suppuration was present beyond all doubt.

He could not this morning (Jan. 26) tolerate any effort on my part to determine whether the joints were anchylosed, and after the photograph was taken, I applied a dressing much in the manner of the first, but heavier and better secured. It retained its place, and was all intact when I examined it the next day, but was so loose from the shrinkage of the parts from what they were at the end of the first twenty-four hours, that I could easily pass my finger under it, and so not only detached it, but inspired him with more confidence that I would not hurt him handling it. I therefore dressed it again without any exploration. The extreme rigidity of the limb can be seen very well in the photograph.

The patient visited me every day for the rest of January and through February, with the exception of three days when the Delaware was so obstructed by ice as to prevent travel across it. These omissions fully convinced him of the necessity of the daily renewal of the dressing, and served to make him very constant in his coming. In that period of five weeks a great many changes occurred; thus, on the twelfth day the depot of pus and sloughing tissue on the fore-arm close to the insertion of the pronator radii teres, the scar from which can well be seen at present, was ready for opening without going deep into the parts. Its discharge was fetid for some time afterwards when I took the dressings off. Its evacuation brought out more prominently the enlargement of the elbow, and was followed by a discharge from the back of the joint where the acupuncture exploration had been made. The reduction following these enabled me to apply a jointed splint over the dressings (but perfectly straight) on the flexor surfaces of the limb. It made the dressings still more secure than they previously were.

On one occasion I exhibited the case, at the

request of Prof. W. H. Pancoast, before his class at the Medico-Chirurgical College, and those of his colleagues here to-night who were present there can recall the desperate appearance this man then presented. There were five fistulous openings about the joint, through one of which, on the inner side, I passed a fine probe attached to a sounding-board, and when I got its point down to the inner condyle of the os humeri, all at the lecture were able to perceive the sound of bare bone which I elicited, and can recall the Professor's declarations that it would be absolutely miraculous if I made a cure in such a case.

Early in March, when all the points around the joint (seven in number) had been opened and discharged freely; he showed very well the benefit of cod-liver oil, iodide of potassium and salol which had been ordered for him, and which he had taken constantly from the time of my first having charge of him. Stopping the iodide when acne appeared on his face, and substituting the salol in its place until they were dissipated; then going to the iodide again as long as there was any thickening of bone, periosteum or ligamentous tissue.

By the middle of April, I had had some experience with topical applications of the gases in kindred cases, and arranged to apply them to him in addition to the clay as part of the treatment. I made the first application of this kind to him at my dressing on the 20th of that month. After the gases had been kept in contact with the parts all around for twenty minutes, and the bag was taken off, each one of the five fistulous orifices which were then open, was seen to be surrounded by a black ring of carbon, and the closest scrutiny could not detect any odor, either of pus or sulphuretted hydrogen about them, and yet a strip of acetate of lead test paper laid on his nose showed by its blackening the exhalation of sulphur there.

Three repetitions of the use of gases in the course of this week were followed in the next week by a thorough freeing of the parts of all odors, and a very noticeable dissipation of the discharges. This improvement continued so markedly that I did not find it necessary to change the dressings more than nine times during the next month (May) and twelve times in June. At the end of the latter he had become possessed of sufficient confidence to repeat the dressings when they became loosened, himself. The joint had then become, as I supposed, firmly anchylosed in its extended posture. I had, indeed, made no attempts heretofore to effect any change in it either by the screw, at the joint of the splint he had been wearing, or by massage and flexion, for fear such might prevent or even retard his cure. He was still in too precarious a condition to hazard any such.

In July he went to the seashore and pursued the treatment there with decided benefit, but unfortunately he returned too soon, for coming home in a very hot spell of weather, he suffered much from the heat at nights in Camden, and was impelled once to leave his bed on the second floor-room and go to sleep on the floor of the piazza of the house. There he was seized in the night with a severe chill followed by fever and a return of suffering in the joint, which he had not had since the first dressing was applied to it by me on the 25th of January, and he had much sweating, with albumen in his urine. Within twenty-four hours afterwards several of the tracks of the sinuses at the elbow became distended, and then discharged showing beyond a doubt the that he had sustained a serious relapse.

The alarm and the disappointment as to what was to be the result of this, were, of course, very great to me, and I did not refrain from expressing them. I then felt compelled for the first time, to keep the earth wet on the parts for twenty-four hours by surrounding it, when so applied, by waxed paper as an air-tight envelope. This encouraged the widening of the sinuses and the free escape of discharge, and so produced a very happy effect, and the patient promptly reacted.

Then, for the next fifteen days, I renewed the drying earth dressings and the use of the gas applications every twenty-four hours, and at the end of that time I removed two small spiculæ of exfoliated bone, mere scales, one from each of the fistulæ over the inner condyle. After that occasion the three points which were then discharging, quickly closed, and I ceased the daily renewal of the earth and the use altogether of the gas applications. The patient was then so impressed that he came to me every other day through the rest of August and the whole of October and November, continuing the dressings the other days himself. By the end of that time, all the signs of suppuration and inflammation, even to that of abnormal heat of temperature, had disappeared about the joint, which was perfectly rigid. The atony of the muscles was very great, and at the beginning of December I ordered him to take compound phosphites and let me pass the galvanism through them daily.

This treatment with the consequent daily renewal of the earth dressing was continued until the first of this year. Then he came to me every other day, when I made efforts for a couple of weeks, by passive motion with him under the rapid breathing, but failed to accomplish anything extra. He failed himself to make the needed efforts in the breathing to produce any insensibility such as I have had often with patients before; I therefore gave up trying it with him, and directed him to let me dress every other day without intermediate changing on his part. This he did until the middle of March, when he took to dressing himself without my seeing him, for

the reason that he had got possession of the news-stand at the river ferry, which kept him constantly occupied. It was in consequence of this that I did not see him again until the evening of Saturday, June 16, when he was perfectly well, but with a limb, as he said, like a pump handle. I then applied a vapor of rhigoline 1 part and aq. menth. 2 parts, around the elbow for some fifteen minutes, and made some efforts at flexion. They resulted in some, very trifling, breaking away of adhesions, but I had to desist on account of the patient being conscious and making efforts to resist me. This attempt was so brief and limited as to merely encourage me for another which I promised myself to make with nitrous oxide gas when satisfied that this had occasioned no harm.

I made it on June 19, three days later, at Dr. Kimmell's office, 1306 Walnut street, where the doctor gave the gas and I broke up all the adhesions of the joint without much difficulty by flexion, extension, pronation and supination, the chief obstacle being at the inner condyle of the humerus, and it demonstrated only at the extreme of flexion, but not anything more than dense fibrous tissue would cause. He expressed himself as feeling tender around the joint when he recovered from the gas, but not as suffering pain. I reapplied the earth dressing immediately on the flexed splint and had him call on me the next day, when he was so free of all irritation that I told him to go on with dressing it himself every day, when he should try moving the joints each time.

At the beginning of the next week he called showing himself confident by the motions he could effect in all the joints that his recovery was to be complete. Since then I have not seen him more than half a dozen times, the last examination showing slight embarrassment of supination at the head of the radius and of extreme flexion at the inner condyle.

ADDENDA.

In the preparation of this paper for its original purpose, that of a communication to be discussed at a meeting of a medical society, and relating as it was intended to patients to be present there, much in regard to them had to be implied or left untold as then uncalled for. This was especially so as regards the details of the diagnosis of all of them, as was shown in the discussion which followed its reading.

In Case 1 it was stated that when I was first summoned to examine the lad I found "all the characteristics of hip-disease in its earliest stage," of course implying not only the absence of dislocation of the joint which does not belong to that stage of the disease, but that I had sought for its signs—had considered the relations between the trochanters, the ischia, and the pubes of both sides, and had failed to find any signs of such a displacement. Then the statement made shortly afterwards, of how and when such dislocation did occur, also made it unnecessary for a declaration of its non-existence prior to that date, particularly as my efforts were evidently to be as concise as possible in my statements.

The testing for the penetration of the sulphuretted hydrogen into the system and its elimination by the skin was made in that case by the strips of bibulous paper charged with acetate of lead and applied across the right ala nasi. These pieces of paper then were browned in nine minutes after the gas was brought and kept by a funnel in contact with the skin of the hip.

Case 2 was brought forward for the special purpose of showing what progress was made at the end of six weeks of the treatment of disease of the wrist with him. He was then free of all pain, but could have some provoked about the joint by harsh handling and by attempts at passive motions of considerable degree there, by either forced flexion, extension, pronation or supination, or by heavy pressure or succussion on the radio-carpal joint. Yet limited motions and pressure of a voluntary character without exciting pains were shown to be possessed by the patient after, as well as before he was subjected to promiscuous examinations by many members of the Society present who wished to make them, and tested well his endurance. The pains so provoked ceased, however, with those latter testings.

The demonstrations of the sulphur passing into the system from the tegumentary surface of the diseased extremity when the gases were being applied on it by the gum bag, in this case, were made chiefly by the patient holding the test paper in the palm of the opposite hand. The discoloration was always there effected between seven and ten minutes after the gas was first passed into the bag.

The consequences of the relapse which occurred in Case 3 served to confirm the diagnosis of "disease in the elbow," as originally made by me. The distension of the sinuses then, and their being widened by maintaining the clay dressing constantly wet on the limb for twenty-four hours by covering it with waxed paper, gave me every facility for exploring inside of the joint. I then, by means of the long delicate probe attached to the sounding board, penetrated it not only along the two sinuses over the inner condyle of the os humeri through which spiculæ of bone afterwards came away, but along the one discharging by an orifice on the forearm. The cicatrix now to be seen there shows that there had actually been two distinct openings at that locality on the forearm, the lower one to a tract outside of the biceps flexor cubiti, and the upper one more on the fleshy surface of the supinator radii longus, which led into the joint by a very straight line to where its surfaces constituted by the trochlea of the humerus

and the coronoid of the ulna, and nearest in front to the integuments when the forearm is extended. The probe of delicate wire passed between those surfaces sufficiently far to indicate clearly that its point was on them and that they were not denuded of their synovial membrane — but were bound together by inflammatory products there.

The testings for the passage of the sulphur vapor in this case were made on the ala nasi of the opposite (left) side, the gas being applied by means of a gum bag over the diseased joint.

ON THE RELATION BETWEEN THE GENERAL PRACTITIONER AND THE CONSULTANT OR SPECIALIST.

Read before the American Academy of Medicine, November 13, 1888.

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Four years ago[1] I ventured to present to this honorable body some thoughts concerning "Specialties, and their Relation to the Medical Profession," which were kindly received in many directions. The subject was so large a one that it could be only partially considered within the desired limits, and the discussion of certain points relating thereto was deferred until another occasion, which I now avail myself of, by the kind invitation of your worthy President.

As the points now to be considered in regard to "The Relations between the General Practitioner and the Consultant or Specialist" have a very close bearing upon those discussed in the former paper, it may not be out of place to very briefly indicate the line of thought there followed out, and to give a summary of the argument then presented.

1. Specialism was found to be a natural, healthy outgrowth from general medicine, as one and another person engaged in the study and practice of medicine has emphasized and developed one portion or another of the vast field in which all have labored.

2. The science and art of medicine has, in company with other sciences, become so vast that no one mind is capable of fully grasping every portion of it, and every medical man is unconsciously more or less of a specialist, or more qualified in certain lines of knowledge and experience than he is in many others.

3. Specialties have aided greatly in the advancement of the science and practice of medicine, by the concentration of thought and experience in special directions, and by collecting and utilizing large numbers of cases for the instruction of those studying medicine.

4. The several branches, or specialties, into which medicine is divided, are so great and extensive each, that the study and practice of each branch is sufficient to fully occupy the time and thought of any one individual, it being difficult even to follow all the advances in any one particular line or department of medicine.

5. In order to properly follow and develop one of the specialties in medicine, the medical man should be particularly well educated, theoretically and practically in general medicine, and should have experience in the same before taking up a special branch; the highest type of a specialist is one who, after thorough training and experience as a general practitioner, develops a special branch in his practice, and more or less gradually comes to devote the greater part or all of his time to the same. In other words, the specialist should be a good physician *plus* the particular knowledge of his specialty.

6. The practice of taking up a specialty immediately after graduation, without such training and experience, is to be deprecated, and is too frequently the cause of a want of success practically, or of a narrow-mindedness which must and does act prejudicially, both for those under treatment, and for the scientific development of the branch of medicine represented.

7. The tendency to specialism in medicine cannot be arrested, both because the vastness of medical science demands it, and because the public require and will pay for the highest attainable knowledge, experience, and success in this as in all other matters relating to human comfort and welfare.

This being, then, the position of specialism in medicine to-day, what relations do exist and should exist between the general practitioner and those who stand thus in a somewhat peculiar position in the ranks of the medical profession, namely the consultants and specialists? for of necessity there must be some relations, inasmuch as they are constantly coming in contact, through the agency of those whom both seek to cure of their maladies.

It will be noticed that I have included the so-called ordinary consultants in medicine and surgery with the specialists, for the former are really, for the time at least, identical with the latter, they being called in consultation because of their special knowledge in the particular case in hand. Moreover, the true and properly-educated specialist really stands on the same footing, according to what has preceded; for he is, or should be, not only a physician or surgeon who is thoroughly acquainted with general medicine, theoretically and practically, but also one who has devoted particular attention to, and acquired peculiar knowledge and skill in some special branch or department of medicine, or class of diseases.

[1] Annual Meeting Oct. 4, 1884. THE JOURNAL, Dec. 13, 1884.

We may best compass our subject by considering the various points separately, and these may be discussed under two great divisions: *First.* As relates to the general practitioner's side or aspect of the question; and *Second.* As relates to that of the consultant or specialist.

First. As relates to the general practitioner.—Here we may first consider the negative side of the subject. The multiplication of specialties does not signify that the general practitioner is to become simply the feeder or the distributer of cases to those who have given special attention to each particular branch. It would be manifestly improper, and productive often of harm to the patient, if as each individual organ was affected he should seek the aid of, or send the case to, some one who had devoted special attention to this or that particular "ology." His education in general medicine should include sufficient knowledge to make him to cope with the ordinary run of practice in all departments, with some few exceptions, perhaps, and it may be safely said that with his acquaintance with the patient's constitution and peculiarities, he can treat a considerable share of the cases belonging to special departments quite as well as one who has made a specialty of the same. This is more particularly the case since, by the multiplication of hand- and text-books, and by the various clinics and post-graduate courses, the specialists have done all in their power to make their special knowledge as generalized in the profession as possible.

But with all the zeal which can be put forth, as we have seen, no one man can compass the whole field of medicine and surgery, with an equal proficiency in every branch, and the honest practitioner continually must find himself in perplexity in some manner or other, and must hope at least, that some other brother practitioner who has perhaps had a wider experience in that particular direction, will be able to aid him in a matter of diagnosis or treatment; and if he is perfectly honest, he will acknowledge to himself, at least, that the interest of his patient demands, and really should have aid, which he feels he cannot furnish, and the natural impulse will be to seek such aid. Hence came, in former times, consultations in many directions, medical and surgical, with older physicians who had gained more general experience.

With the advancement of the science and art of medicine, surgery became the first general specialty, and it became recognized that one who possessed a taste and showed a fitness for surgery by coolness and patience, and who kept on hand a variety of surgical implements, was far more successful in dealing with surgical cases than the one who was not thus fitted for the work; then, gradually, there was added the qualification of experience, and the surgeon was an acknowledged necessity everywhere, and surgery has been now an established department for very many years.

Perhaps the most striking and conclusive illustration of the value of a further segmentation of medical practice is found in abdominal surgery, which by the arduous and brilliant labors of its devotees has made strides which could not have been imagined fifty years ago; who can reckon or even conjecture the amount of comfort and human happiness which has been rendered by the ovariotomies, numbering thousands, which have been performed by the masters in this line of work, and their followers. Surely every family practitioner does not now feel justified in undertaking serious surgical cases, or in performing ovariotomy, without some special fitness and qualifications, which comparatively few possess.

It is not necessary to carry this line of thought further, but all who have seen much of practice, must acknowledge that cases about the male and female genito-urinary organs, the throat, the eye, the ear, the skin, the heart, the lungs, the joints, and the nervous system, have presented difficulties in diagnosis and treatment which have been solved when undertaken by those who had made special study of the same.

What, then, are the relations which exist between the general practitioner and the consultant or specialist? They are those which should exist between friendly brother practitioners, advising together with regard to the very best interests of the sufferer whom they are called upon to relieve, and whose interests they are bound by their high calling to serve according to the best of their ability.

But, says one, that is well enough theoretically, but in practice it does not always work so well, and one or the other physician often suffers thereby. Unfortunately this is sometimes true, but the *principle* remains also true that the best interests of the patient, who pays his money for it, should be served; and, what is more, the *fact* remains true, that the patient *will* in the end secure the service which is most beneficial. And so it sometimes happens that the general practitioner who has not secured for his patient the best advice attainable, will receive more blame and harm by not securing the aid, or turning over the case to another, than he could possibly have received by so doing. It is a daily occurrence for one in special practice to hear a family physician blamed, and that too, often very severely, by his own patients, for not acknowledging that the case was obscure and giving the patient the aid of the service of others; and the conscientious specialist often finds it very difficult to guard the honor and reputation, it may be of his best friends who are thus berated.

With the position of specialism in medicine at the present time, it is both the duty, and the part of wisdom, for the general practitioner to give

patients the benefit of their services, and that, too, before the cases are hopeless, and even before they have exhausted every means of relief at their own disposal. For experience has shown that often gain to the patient may be had thereby, and if the patient can pay for it and is willing to do so, he has the same right to it that he has to any other element or agent which can be employed in effecting a cure. And experience has further shown that the practitioner who honestly gives his patients the opportunity of securing relief in this manner, gains quite as much from his reputation for fair dealing as he might actually lose by the fees which a specialist might secure from the same patient, or even more.

It is further a fact, that the family practitioner by no means loses all the money which may be paid to the specialist, for in the first place, patients are more willing to follow out the treatment of the latter than they are of their family physician, and will often continue faithfully under treatment, and make the necessary regular visits, when before they have consulted their family adviser only at the most irregular periods, and have followed his treatment in a most desultory manner. Moreover, the fees as a rule are higher to the consultant and specialist than the family physician can collect, so that he does not in reality lose as much as might be imagined. The reason for the larger individual fees is found in the greater amount of time given to the investigation of cases, and also the very large expenditure of time which is often made by them in acquiring their knowledge and experience in study abroad and in public practice at home.

But another reason for sharing practice with consultants and specialists is found in the rights of these latter. As medical men, fully qualified and authorized to practice, they have a claim and a right to such of the confidence and support from their fellow men as they can honorably acquire. In entering upon the practice of a specialty they voluntarily give up their claim and right to gain a livelihood from treating a greater part of the body, and confine their attention to a single organ, or group of diseases. They have just as much right to care for the disease coming within the scope which they have marked out for themselves as the general practitioner has to care for the entire human frame. Now, because a friend of a specialist, who for instance, has just moved into a locality, requires some treatment other than the one which he is prepared to give, and so seeks a general practitioner, he is at once regarded as the patient of the latter, whereas his choice would have been the specalist, if he had not voluntarily declined to treat him outside of his branch. The illustration is given to show that the specialist has a right to a certain amount of practice, which, moreover, the public are sure to accord, when it becomes aware that to do so is also to their advantage.

This brings us to the consideration of the second branch of our topic, which can be briefly disposed of, namely:

Second.—The relation between the general practitioner and the consultant or specialist, as relates to the standpoint of the latter.

1. Is it advisable for the specialist to take general or family practice? It must be granted that scientifically and practically, it is far better for him as a medical man to see something beyond his specialty, his knowledge will be more rounded and symmetrical; his views will be broader and more practical, and he will really be able to treat his patients better, other things being equal, if he can have general medical experience than if he is wholly confined to the daily round of his specialty. But, on the other hand, there are reasons why it seems impracticable for the specialist to engage in general practice; the two conflict in point of time and hours, and practically he finds that he must choose between an office practice or general work. It would be well if he could keep up his general knowledge by service as visiting physician to a general hospital, but this is not always practicable.

One of the greatest objections to a specialist's continuing in general family practice is found in the continual conflict it causes with regard to the practice of other physicians. The specialist who has successfully treated a case which had before proved obstinate is continually asked to see others in the family for other complaints, and if he is in general practice it is immeasurably more difficult to refuse than when he confines his attention to a single branch. In either case it is unquestionably the duty of the specialist to utterly refuse to take other practice in families of patients who have been referred to him for consultation or treatment; it is his moral obligation, as well as his interest, to be loyal to the brother practitioner who in honesty has sought his aid for a patient in a particular line of practice.

2. What is to be done in regard to patients who have been sent or brought in consultation, and who subsequently desire or insist on being wholly under the care of the specialist alone? This is sometimes a serious and perplexing question and one which many a consultant and specialist has found difficult to solve in individual instances. I have put the question carefully to lawyers and business men many times, not as related to their own cases, but theoretically, and the universal reply has been that the patient had a right to choose, and that the specialist was in duty bound to treat him. But our Code rightly teaches that the consultant should only act when requested by the attending physician, and undoubtedly the rule holds good that physicians should be very slow to take patients from one another, especially when confidence has been reposed in one by a brother practitioner seeking advice for a patient. And,

higher than this, stands the Golden Rule, to do to others as we would have them do to us—which if more borne in mind and acted upon would solve many problems and many difficulties.

But, on the other hand, the Code recognizes that "in consultation the good of the patient is the sole object in view," and it must be granted that patients have rights in the matter. When, therefore, patients desire and insist on being treated directly by the consultant what should be done? As I believe, the patient should be informed of the ethical aspect of the case and asked either to request a note from his physician placing him in charge of the consultant; or, should the patient notify his physician that he wishes the proposed change, and unless there is some particular reason to the contrary the choice of the patient is to be followed. When the patient comes from a distance, or the emergency is such that it is desirable for him to give relief at once (and the patient desires the change) the consultant should write to the attendant, stating the facts of the case, giving the line of treatment prescribed, and then, either ask the patient to follow the previously mentioned plan, or he himself should communicate with the family physician, stating that the patient desires him to carry on the treatment, begging a reply expressing his wishes in the matter.

At the best, such changes in the medical supervision of a case are unpleasant, both for the consultant and family practitioner and will often require care and tact to escape giving offense; and not infrequently the best intentions and the most careful actions will still fail in avoiding some means of annoyance. But, as before stated, patients have rights in the matter, and can and will choose who shall heal them.

3. Numbers of patients come to a specialist directly from his general reputation, or from some other patient, or from some other cause: should the family practitioner be consulted or referred to in regard to these cases? Theoretically it were better, perhaps, if this could be done, but in practice it is impossible or impracticable. Patients have a right to seek aid where they think they are most likely to find it, and in the present state of medical specialism they are likely to do so more and more. The most, therefore, that the specialist can do is to seek to treat his brother practitioner, who has seen the case before him, fairly, and, as the Code has it, "the conduct or practice previously pursued should be justified as far as candor and regard for truth and probity will permit." Further than this he need not go, he has a right to prescribe for the patient independently and to all practical intents and purposes that is "his patient," at least as far as relates to the particular malady for which he was consulted. In practice undoubtedly the welfare of the patient is the first object, but in benefiting the one, care may and should be exercised not to harm another.

There are other points and questions which might be considered in connection with our subject, but must be omitted for want of time. Enough has been said, however, to show that the general practitioner and the consultant or specialist are not so widely separated as some have imagined; they are brethren in one noble calling, they should both be actuated by the same high purpose to do the most good possible to their fellow creatures, and while both have their rights and privileges, both will find these rights and privileges best conserved by seeking to remember and practice the Golden Rule.

4 East 37th Street.

PANCREATIC CALCULI AND RESULTING LESIONS.

Read before the Section in Surgery, at the Thirty-ninth Annual Session of the Iowa State Medical Society.

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Lithiasis of the pancreatic duct is a disease of rare occurrence, though existing perhaps much more frequently than is discovered in the uncertainty of the real pathology involved in many conditions of abdominal disease.

The last decade has brought brilliant achievements in the new field of abdominal surgery and shed new light upon the existence of pathological processes involving the abdominal organs. The laparotomist, encouraged by a fair percentage of success, boldly and fearlessly explores cystic invasion and tracks it to its origin and source of development, completely subduing it by obliteration.

The pancreas though modest and retired behind its omental veil, richly fortified in front by the stomach and colon, in point of frequency in cystic growth, rivals the *echinococcus* with its hooklets, but claims no comparison to the more fruitful ovary. Surgical exploration and autopsical research show that obstruction of the pancreatic duct from whatever cause, traumatism, encroaching biliary disturbance, pancreatic calculi, down the role to the more grievous malignant degeneration, in fact whatever may operate to occlude the pancreatic duct, and bring about parenchymatous change in the gland tissue, results in the rapid formation of a smooth, painless cystic tumor, manifesting itself by epigastric fullness and ultimately prominent display of well-defined cystic growth, as the leading diagnostic feature of the disease though difficult to differentiate from cysts of other origin.

Pancreatic calculi and the resulting lesions, is the form of pancreatic disease which I desire to describe in this paper and furnish data from a case recent in my observation. But in the case I shall report this uniformly common lesion of cystic de-

velopment was absent, which may be accounted for by the resulting interstitial change in the organ not being, perhaps, sufficiently advanced at this stage to occasion it, the case terminating prematurely from the accident of perforation due to ulceration resulting in fatal peritonitis.

In November, 1887, Mr. A. F. W., a business gentleman, 62 years of age, in the enjoyment of ordinary good health and for several weeks unusually active in business and public affairs, was suddenly taken with pain in epigastric region which he supposed to be colic. A mild anodyne quieted this down, but same pain with greater severity returned next day. Patient being away from home was unwilling to give up, and with moderate doses of morphine was able to keep going a day or two, when he took his bed in great agony, from most excruciating pain. A very worthy medical gentleman was called in attendance. Large doses of morphine were required to quiet the pain and an opiate continued to keep him comparatively comfortable.

In a couple of days other symptoms developed warranting a diagnosis of peritonitis. I was telegraphed for, and on arriving in a few hours found the patient comfortable under the opium treatment.

There was very general abdominal tenderness and pain on pressure most pronounced in the epigastric region, and extensive tympanitis over the entire abdomen.

The disease terminated fatally on the tenth day after the first manifestation of pain.

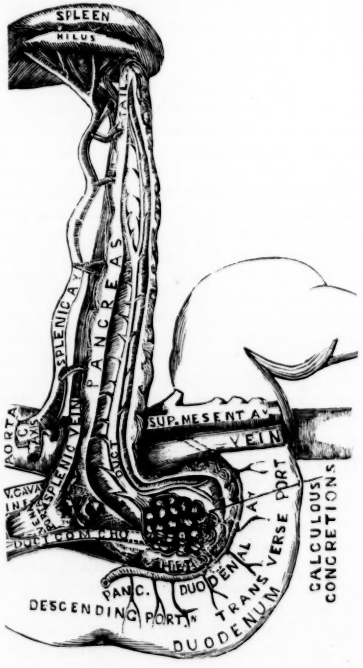
There was nothing exceptional in the case from the symptoms and conditions usually observed in a general diffused peritonitis, unless it was the very moderate amount of febrile disturbance and equally low pulse—the temperature persisting below 100° and pulse maintaining regularity at 78. Both symptoms out of all proportion to the general character of the disease which was alarming in other features.

There was no manifestation of any exciting cause for the abrupt appearance of this fatal inflammation.

Rupture of the gall duct by stone was mentioned among the probable causes. An investigation was made to find the pathological element, though completely masked as far as the array of symptoms in the case indicated, that should account for this secondary inflammation to tissue, where violence is not tolerated and encroachment from any source is promptly resented.

Drs. Middleton and Allen, kindly made a post-mortem for me. The heart was perfectly normal, the lungs in condition to perform their function properly, and the liver of natural size and character. General diffused peritonitis was found with purulent exudation and inflammatory adhesions, centralized in the locality of the head of the pancreas and its relation to the duodenum having extended throughout the intestinal viscera. Under this mass of breaking down tissue with the natural relation of the parts much distorted in appearance and necessarily mutilated in consequence of the separation of the inflammatory adhesions, the pancreas was found enlarged and indurated.

On the anterior surface of the head of the pancreas, near the duodenum was discovered a nodulated condition which on closer inspection was found to be a mass of concretions as large as a peach stone made up of a number of smaller irregular shaped bodies. This mass was incarcerated in the pancreatic duct near its entrance into the ductus communis choledochus, being about an inch from the opening of the common duct into the duodenum, as shown in the cut.



The communis choledochus and cystic ducts were free, but the gall bladder was atrophied and filled with small stones.

Submitting these two formations to test, the biliary calculi when ignited burned as a torch, while the pancreatic formation refused to ignite like the cholesterin product. When analyzed, it proved to be phosphate of calcium, which is the composition of pancreatic calculi, though sometimes these concretions may be carbonate or both carbonate

and phosphate of lime. A catarrhal condition of the mucous membrane of the duct seems to favor the formation of these calculi by the precipitation of the inorganic ingredients of the pancreatic juice due to the altered chemical composition of the secretion. The wall of the duct enveloping this mass of concretions was found perforated, permitting foreign material to escape, which was the irritant provoking the fatal peritonitis.

Perforation of the walls of the duct is an accident which is liable to occur in this stage of the disease, from over-distension of the canal, ulceration from strangulation, abscess in locality of the organ and rupture of retention cysts into the peritoneal cavity. Any of these accidents set up sudden peritonitis, and as in this case may be the first marked intimation of a disease capable of such unexpected havoc to life. It still remains a surprising circumstance that so extensive a pathological condition could exist with evidence in the very nature of the case of a history antedating the sad climax, covering months, if not years, and be consistent with good health. This last statement perhaps deserves some qualification. As it refers to uninterrupted good health for a year and a-half before his death it is correct. But for several years previous to that the patient had, at intervals of three or four months, attacks of gastro-intestinal trouble lasting three or four days. These attacks would be ushered in with violent paroxysms of pain in the right hypochondriac region, extending to the median line, sometimes decided jaundice supervening. In character these paroxysms similated hepatic colic; the passage of gall-stone was suspected, but failing to find concretions in the stools, it was uncertain whether gastro-duodenal catarrh might not account for the derangement. With the revelation which the post-mortem brought forward, it is clearly evident that either of two factors present could produce the recurring paroxysms. With the plentiful presence of gall-stone in the cyst, such phenomena would be expected almost of necessity. And could also be accounted for by the transit of a pancreative calculi, a process so parallel to the passage of gall-stone, that it is said to be impossible to differentiate them.

It might be deserving of interest to mention in this connection a distressing symptom which the patient complained of, diagnostic when associated with other characteristic conditions, impressing him with the fear of heart difficulty, notwithstanding the most positive efforts to disabuse his mind to the contrary. It consisted of a momentary stitch of intense pain, deep-seated under the stomach and præcordial region. This would be experienced at intervals of a few hours, and at other times not for days. Such præcordial distress is spoken of as a very constant symptom attending pancreatic disease in general, when the enlarged and heavy gland encroaches upon the solar plexus, certain positions of the body favoring its direct pressure upon this sensitive ganglia.

Lesions indicating impaction of the duct were entirely absent in the symptomatology of this case, rendering a diagnosis of calculi or any form of stenosis impossible. Aside from cancer, with its pain and cachexia, pancreatic disease in general is of difficult recognition. The particular forms are to be diagnosed only in cases where the decided indications are manifest, and then by careful elimination of allied conditions of more frequent and probable occurrence.

The train of symptoms suggestive of obstruction are the presence of the secondary lesions, notably the development of cystic growth in the epigastrium, the suspension of the physiological function of the organ which is denoted by fatty stools, rapid emaciation and debility from malnutrition; also pale yellow earthy color of the skin and the peculiar neuralgia just mentioned.

Without these manifestations a diagnosis cannot be attempted. The resulting lesions might have developed in this case if the degenerative changes in the gland had farther advanced before the accident of rupture precipitated the sudden termination of peritonitis. The perversion of the physiological function of the organ and the formation of retention cysts is due to parenchymatous changes in the tissue from interstitial inflammation set up by the irritation of the foreign bodies as well as to the immediate mechanical obstruction. Experiment has shown that in simple temporary obstruction of the duct the juice is disposed of by absorption by the tissue itself. In the *American Journal of Medical Sciences*, 1883, Johnson reported the collection of thirty-five cases of retention cysts induced by stony concretions, and from other statistics this is no doubt a very constant lesion.

Pancreatic calculi uncomplicated is scarcely amenable to treatment, from its doubtful recognition, but its resulting lesions in the nature of cysts, abscess, and accidents incident to pathological changes involved admit of surgical interference when plainly manifested.

Gussenbauer reports a case of a man with history of indigestion and rapid emaciation, pale dirty color of skin and swelling in region of the stomach. The rapid growth of the tumor behind the stomach, justified Gussenbauer to make a probable diagnosis of cyst of the pancreas or suprarenal capsule. The critical condition of the patient necessitated a surgical operation as the only hope of relief. An incision was made five inches long in the linea alba and peritoneal membrane. Omentum was detached and vessels compressed and ligated. Parietal peritoneum was sutured to the skin and the anterior surface of the cyst stitched to the margin of the wound, the cyst then drained with trocar and a fistula established.

The patient recovered and was discharged in

three weeks. His next three cases of cyst of the pancreas were mistaken for ovarian cyst.

To Dr. Bozeman, of New York, is accorded the most brilliant result, having effected a complete extirpation of the cyst. A lady was sent to him with her case diagnosed ovarian cyst. Bozeman in consultation with Thomas and Emmet confirmed the diagnosis. The patient had a history of attacks of indigestion for seven years. Two years later abdominal enlargement began to appear and the few weeks previous to the operation, filling up rapidly and symmetrically the whole cavity. The usual incision for ovariotomy was made and two gallons and a-half of fluid evacuated. When the cyst was partially withdrawn it was found to be free from the ovaries and its origin traced to the juncture of the outer with the inner two-thirds of the pancreas. The pedicle was secured and cut off, after separating quite an extensive adhesion. Patient made good recovery and was discharged cured on the 38th day.

Dr. N. Senn, of Milwaukee, reports a case of pancreatic cyst with the history of traumatism. A laborer was thrown from a wagon, striking the ground on the left side of his abdomen, a heavy keg falling upon his back. In a few days diarrhœa set in, reducing his strength. Complained of sensation of fulness and weight in region of the stomach. Tumor appeared occupying the epigastric and left hypochondriac space. Dr. Senn limited his diagnosis by exclusion to either a sterile echinococcus or pancreatic cyst, and decided to perform laparotomy and stitch the cyst wall to the peritoneal covering of the wound, and not evacuate till adhesions had formed, to protect against danger of extravasation into the cavity. He found the cyst wall so tender he could not prevent laceration and was compelled to evacuate and drain the cyst, which he did safely, by turning patient on his left side. Other than this he carried out the plan of his operation, finding a cyst which led to the tail of the pancreas. A fistula was established and in a few weeks patient was discharged in good health with perfect digestion and fistula entirely closed.

These charming successes in the midst of numerous disastrous failures, in attempts to secure the same results, only show the possibility of what may be accomplished in favorable cases, and when it is evident there is no other hope of saving life, such interference should be carefully considered.

Recent operations for the removal of biliary impaction and the more novel method of washing out and draining a peritonitis, suggest a way of arriving at the primary processes of these lesions, above described, and the possibility of removing calculi and directly reaching the sudden accidents, in consequence when fatal in character after ascertaining their true nature by diagnostical laparotomy.

But such serious interference could not be entertained in cases like the one under consideration, for in this instance the good health of the patient up to the attack of peritonitis and in the absence of any manifestation of the presence of such a lesion as was found to exist by the autopsy, the exciting cause to the peritonitis could not be other than a mystery and explorative measures unwarranted.

In other cases where the history has been significant, the primary lesions determined, inciting such a peritonitis, bolder measures might be wisely considered.

It is evident that we are in the dawn of an era in surgical progress of clean hands and skilful manipulation, when explorative laparotomy as a diagnostic measure will not only be regarded as a feasible, but a practical procedure to recognize many doubtful pathological conditions that are amenable to successful surgical interference. Until experience and legitimate success shall have crowned such an era, the past and yet present conservative and expectant attitude must not be indiscriminately abandoned.

MEDICAL PROGRESS.

MAMMARY INFLAMMATION.—At a recent meeting of the Royal Academy of Medicine in Ireland, DR. ANDREW HORNE read a paper on "Mammary Inflammation and its Treatment by Elastic Pressure." He believed the methods usually recommended and taught were gravely defective. Suppuration ought to be a very rare occurrence. Inflammation of the breast was almost always the result of infectious material gaining entrance through fissures and cracks of the nipple, and too much attention could not be paid by the attending physician when such a condition exists in the nursing mother. The method of treatment advocated was to envelop the breast in a layer of absorbent cotton. Having first painted the breast with a 5 per cent. solution of oleate of mercury and morphia, then having procured an elastic web bandage, five yards long by three inches wide, he makes equable and gradual pressure over the inflamed gland, thereby securing the most perfect rest possible. DR. MACAN said he had long used compression of the breast in certain cases, although he did not regard it as suitable where there was suppuration; but he felt that he could reccommend Dr. Horne's plan, even where there was suppuration, as strongly as in other cases. It gave great relief to the patient, and was, he thought, a great step forward, especially as they now stopped poisoning their patients for affections of the breast. DR. MASON said the plan recommended would greatly extend the treatment of sore breasts by pressure. Pressure

was a very old mode of treatment; but the graduated mode of applying it which Dr. Horne put forward was comparatively recent, and seemed to have had most successful results. Varieties of plasters had for long been before them. Belladonna plaster he believed to be one of the best. In this kind of treatment it was most important to give the breast perfect rest. It was remarkable that women who did not attempt to nurse their children did not suffer from sore breasts. DR. HORNE, in reply, said the bandage he used was an ordinary web elastic. One of the reasons why he had adopted this bandage instead of elastic plasters, was that it was most difficult to put on elastic plasters in such a way as to get even pressure. Another reason was that elastic plasters were apt to produce an eczematous eruption on sensitive skins. That would never happen with his bandages. The belladonna and cere cloth plasters, which for a long time used to be applied in the Rotunda, no doubt used to give a great deal of relief; one reason for that being that they prevented the breast from being rubbed or used, or anything from happening to it which would lead to suppuration. As to Martin's bandage, patients to whom he had applied it complained that it caused uncomfortable heat; whereas his bandage, being more porous, allowed a freer circulation of air.—*Lancet*, Dec. 29, 1888.

A SIMPLE TEST FOR SOME IMPURITIES OF BALSAM OF TOLU.—R. A. CRIPPS: Balsam of Tolu is one of those products which, on account of its price and resinous nature, is very liable to adulteration. Such obvious adulterations as sand, earth, chalk, etc., can readily be detected, but this is not the direction in which most adulterated samples are sophisticated, other resins being naturally selected for the purpose. I do not claim any originality for the reaction which constitutes the test I now propose, but I have seen no communication recommending its use in testing balsam tolu, which is sufficient reason for bringing it before your notice this evening. About 30 grams of the sample are digested in bisulphide of carbon for about fifteen minutes, keeping it gently warm by occasional immersion in hot water. The clear liquid is poured off, evaporated to dryness, and, when cold, sulphuric acid added to dissolve the resinous extract. A bright red-rose carnation is produced, which, in the case of genuine tolu, remains of a distinctly rose hue for some considerable time. If, however, the sample be adulterated with either storax or ordinary resin, the rose color rapidly becomes more brown in tint. The best way to apply the test is by performing the operation upon a genuine sample by the side of the suspected one. In this way a distinct difference in tint can be observed if only 1 per cent. of the adulterant be present; with 4 per cent. of resin, or rather more of storax, the difference in tint can be readily distinguished without the blank experiment. If to the sulphuric acid solution a fluid ounce of water be rapidly added the color of the resulting liquid is much duller and paler when ordinary resin is present than with the pure balsam.—*Pharm. Journal.*

NEW METHOD OF DESTROYING TATTOO MARKS.—DR. VARIOT has discovered a means of obliterating tattoo marks, a result hitherto reported to be difficult, and even impossible of achievement. He pours on the marked spot a concentrated solution of tannin, and works it into the skin by a series of pricks, just as in tattooing proper. A certain quantity of tannin is thus introduced beneath the skin. He then rubs the part with nitrate of silver, and allows the solution of the salt to remain *in situ* until the prick marks show out as black spots. The caustic is then wiped off, and the result is the formation of a black stain of tannate of silver. Inflammation is set up, and in the course of a fortnight scabs form, on the disappearance of which no trace is left of the original design, the only *souvenir* being a reddish scar, which in time becomes less visible. Various other plans have been tried without success—scarification, the introduction of opaque powders and caustics into the skin, etc. The tannin in this operation acts as a mordant, and in no case did he have to deal with troublesome suppuration, although if the area be large it is well to do a piece at a time.—*Medical Press and Circular.*

THE ANTIPYRETIC, "PYRODIN:"—Under this name a new drug has been introduced, which has undoubted temperature-reducing properties of a high order, the practical application of which, however, is much interfered with by its toxic action. Pyrodin contains as its active agent acetylphenylhydrazin ($C_6H_5N_2H_1C_2H_3O$) a crystalline powder very sparingly soluble in water. According to the clinical and experimental observations of Dr. Dreschfeld, of Manchester, which have been confirmed by M. Lépine, of Lyons, pyrodin acts in the same manner as, but more powerfully than, antipyrin, antifebrin, and phenacetin; and it has also been used effectively in migraine and other forms of neuralgia, as in the lancinating pain occurring in locomotor ataxy (Lépine). Great caution, however, is required in its administration, as it is apt to produce jaundice, followed by anæmia, and even more serious symptoms due to hæmoglobinæmia. Milder toxic symptoms have occasionally followed the administration of acetanilid or antifebrin, and also of phenacetin; but as phenylhadrazin is a much more powerful poison than anilin, so also are the toxic properties of its acetyl compound much greater than those of acetanilid. In face of the poisonous

qualities of pyrodin, we must warn the profession against the use of this drug generally. In exceptional cases, and where other antipyretics have failed, it may be useful, but great caution should be used. Small doses only should be given, and at sufficiently long intervals to enable one to watch any toxic effects, with the first appearances of which the drug should be stopped. —*British Medical Journal.*

THE ETIOLOGY OF TETANUS.—According to M. VERNEUIL the microbe of tetanus comes from the horse. Following this opinion M. Richelot has cited, in a paper before the Académie de Médecine, two cases of tetanus supervening after ovariotomies, notwithstanding the most vigorous antiseptic precautions, and he attributed them to the emanations from a layer of manure deposited in the court of the hospital the night before the operation.

M. Ferrillon also reported a case following a wound made by a horse shoe soiled with manure.

On the other hand, M. Gailhard, a naval surgeon, found tetanus constantly on board an ironclad vessel in which a horse never came; but might not the cases come from the emanations from the litter of the beef cattle on board?

Dr. Abadie, during the war of 1870, witnessed a severe epidemic of tetanus in the little village Or. Wounded patients left at houses escaped free, but those who were necessarily placed in a church on straw succumbed to tetanus. This is an important detail, for that straw was found to be soiled with detritus and dejections, either animal or human. M. Abadie thinks that in Richelot's case, one cannot trace the cause of the tetanus to direct inoculation from the hands or instruments, but that the transmission of the germs coming from the emanations of the manure sufficed to explain the infection. In other cases he had always found the close presence of manure.

In summing up after him, the etiology of tetanus, we may conclude that the infectious germ of tetanus does not exist in the atmosphere, and that its favorite seat is in the manure heaps, where fermentation goes on under conditions of temperature and humidity favorable to its evolution.—*Gazette Medicale de Liege.* Translated for THE JOURNAL.

LAPAROTOMY FOR ASCITES.—DR. T. A. ASHBY, of Baltimore, in the *American Journal of Obstetrics* for January, advocates explorative laparotomy being done in cases of ascites without any ascertainable causative conditions. Where the symptom exists, but there is nothing within reach by manipulation or physical signs can reveal any form of abdominal tumor or structural change to account for the same, then Dr. Ashby says that an operation to aid a more thorough exploration of the abdominal and pelvic viscera is justified, but it should never be undertaken until all other methods of diagnosis have been found inefficient, and even then the surgeon should have a reasonable assurance that the information sought for can only be found by this method. In ascertaining axiomatically that explorative laparotomy, carefully and asceptically performed, is, comparatively speaking, free from danger, and should be undertaken in all cases where the surgeon has a reasonable hope of rendering a service commensurate with the risks it imposes, he adds that the latter are less in abdominal accumulations through the greater tolerance of interference possessed by the peritoneum in such cases.

GOOD BREAD FOR DIABETICS.—Samples of bread for diabetics were lately shown to the Section for Clinical Medicine, Pathology and Hygiene of the Massachusetts Medical Society by DR. J. A. JEFFRIES, who furnished the following formulas for their preparation:

One cup of graham flour; one cup of best bran previously scalded with one cup of boiling water; two eggs; German yeast or baking powder; salt to taste; one cup of milk or water. To be mixed with a *spoon*.

Such a bread contained 17.72 per cent. of starch, the equivalent of 19.68 per cent. of sugar.

One cup gluten flour; one cup best bran previously scalded; one teaspoonful of baking powder; salt to taste; two eggs; one cup of milk or water. To be mixed with a *spoon*. If the hands are used the result will be even more disastrous than in the making of ordinary bread. This bread is healthy, palatable, nutritious, and contains but 4.57 per cent. of starch, equal to 5.08 per cent. of sugar.

ELECTROLYSIS IN PROSTATIC ALTERATIONS.—Electrolysis, while applicable to all strictures of the urethra, is of permanent benefit in many of the morbid alterations of the prostate. It has an anæsthetising influence upon the terminal nerves at the point of application; it aids in overcoming spasmodic stricture of the prostatic urethra, in early relaxation of spasm by muscular exhaustion following the continued overstimulation; it seals the distention and relaxation by natural reproductive processes; it excites absorption and relieves the patient.—*Dr. D. S. Davis, of Birmingham, Alabama, before Southern Surgical and Gynecological Association.*

INCOMPATIBILITY OF COCAINE AND BORATE OF SODIUM.—In a paper to the *Société de Pharmacie*, M. LEVAILLANT said that in mixing these substances for collyria or gargarisma he had found a precipitate of cocaine. This will disappear on the addition of a few drops of glycerine.—*Arch. de Ph.*, November 5, 1888.

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THE SUPPRESSION OF DIPHTHERIA.

At the meeting of the Chicago Medical Society held January 21, DR. C. W. EARLE read a paper on "The Contagious Character of Diphtheria." The writer agreed with the generally accepted view of its etiology, but claimed that the profession seemed to quite frequently fail to grasp the real necessity for notification, isolation and disinfection. In the discussion which followed, DR. O. C. DEWOLF spoke of the difficulty he experienced in receiving notification of the cases to enable him to placard houses. He was quite sure that no means was more efficient in preventing the spread of diphtheria than the simple placard, and in his experience householders did not object to the notice, as it was for the general good; but he desired an expression from the Society as to the duty of every medical man to promptly notify the Health Department, of the occurrence of diphtheria.

In closing the discussion Dr. Earle moved the adoption of resolutions declaring it the duty of the profession to so report, and the resolutions were adopted with only one or two dissenting votes.

When the great mortality from this Northern scourge is considered, it is wonderful that no more active steps to limit its spread and propagation are taken. There were nearly a thousand deaths in Brooklyn, and eight hundred and fifty-eight in Chicago during the past year! and these great numbers are not materially in excess of the ratio in other cities of the Northern Section of the Union.

If there were ten per centum of this mortality from yellow fever, small-pox or cholera, public opinion—the potent factor in moving things in this country—would compel immediate concentration of sanitary forces upon this important question.

It is well known that isolation of the cases and disinfection will prevent its spread, why not apply the remedy?

The method of disinfection may well claim attention, for unless well done it is but a broken reed to lean upon. The disinfection in cases of diphtheria should include thorough application of antiseptic solutions to the throat and nasal passages of the invalid; disinfection by bichloride of mercury, of all excreta, whether sputa or fecal matters, the boiling of all linen used or worn in the bedchamber, the frequent sponging of the walls of the sick chamber with the "blue solution," or the solution of bichloride of mercury, the spraying of the upholstery with the same, and, after disposal of the case, the thorough fumigation of the sick chamber with the fumes of burning sulphur, and if there be a carpet, it should be sent to a steam cleaner.

These are the means which have been taken by that most efficient health officer, DR. J. Y. PORTER, U. S. A., at Jacksonville, Fla., for the prevention of the recurrence of yellow fever, and the same active and energetic treatment is needed elsewhere in dealing with the greater pestilence, diphtheria. Let us hope that the efforts of health officers everywhere, in trying to limit the spread and arrest the propagation of diphtheria, may be supported and sustained by every means within the power of the profession.

THE AMERICAN MEDICAL ASSOCIATION.

"So smile the Heavens upon this holy compact."

How the conditions have changed since the first regular meeting of the American Medical Association, in Philadelphia, forty-two years ago! Then, it was viewed as a triumph, that there were two hundred and fifty delegates in attendance, in spite of the New York opposition, now a meeting with less than two thousand members is looked upon as an ordinary affair and the membership of the Association is nearly five thousand! The original founders of the Association aimed high, they insisted that the colleges

should hold their courses for six months, and that a high standard of preliminary education should be required of all intending to study medicine. At that time many of the medical colleges held terms of only *fourteen weeks* in duration, and persons were graduated after an attendance upon a single course of lectures; a variable period of "practice" being accepted as the equivalent of a course of lectures. Even then there were persons who opposed organization, who considered themselves too great to be dictated to, and who felt that their privileges must not be restricted. Then, as now, the head and front of the opposition clique was in New York. Then the opposition was centered upon the matter of membership, now it is upon an alleged Code difference; but during the entire period there has been opposition, and the opposition party have made use of whatever pretext happened to be uppermost; and all the time there has been an assumption of superiority, an alleged upper crust of medical wisdom that looked upon the banding together of the rank and file of the profession as an invasion of the inherited rights of the anointed. The descendants of the ancient objectors have succeeded of late in making it perfectly clear in their own minds at least, that they alone of the medical men of this country, have the energy, the staid ability and the medical genius of America; that all else is meretricious and beneath notice, that to them alone has accrued that truly sanctified beatitude that ensures them a place in the niche of fame, where no plain Association man, however well-meaning, need ever hope to attain.

For the benefit of these *unco guid* we have only to say, that the old Association has come to stay; that her members are proud of her past and they mean to see to it that her future is no less glorious, that they have but one ambition, and that is to see the Association become the most useful and the greatest on earth. Although they prefer peace, they mean to fight when they are attacked, and they never intend to stop working for the Association until its membership shall pass the limit of twenty thousand men.

Why work for the Association? Why simply this, enlarged membership means unlimited resources, plenty of money means a good building, owned by the Association, where the members may have free access to their library, either in person or by their representative, and where their JOURNAL may be published. And such a Journal! With money, a correspondent may be furnished for every clinical center of the world, and the clinical gleanings of the universe, may be laid before the owners of THE JOURNAL every week. It could have no rival, for no private publication could have such sustained resources or such hearty and enthusiastic support. Investigations under the auspices of the Association could again be undertaken, and all the power of increased wealth would be manifested by the Association. It could dictate terms, to every person or organized body that opposed the march of medical progress, and itself shape the medical matters of this Continent.

Is there not reason enough why every member of this Association should go earnestly to work? Should he not benefit himself? Is it not clear why the descendants of the ancient enemies of the Association should desire to crush it now?

But there is one thing the Association must steer clear of, if it hopes for success; that is, it must put itself squarely against the office-seeking mania that developed itself at Cincinnati, established headquarters and made its adherents ridiculous even in the eyes of their friends; fortunately the Nominating Committee put a quietus on that business, as they may usually be depended on to do when occasion offers, but beware of that device of the enemy, the "Executive Council." Do not supplant the Nominating Committee. Let us support the freedom of its members, and not strangle their individuality by a resort to a star chamber plan of conducting the business of the Association. Let the members be free as the air, and allowed to vote for what they please concerning the working of our Association, and all will be well; suppress their present freedom, exalt a clique, they will keep in control, and the downfall of the Association will surely follow.

The foregoing are the views which actuate us in urging the present membership to stir themselves in securing new members by application. The need of new members is apparent, why then should not each member go quietly to work and bring in one new one? The work is easy, will it be done?

THE next meeting of the Association will be held at Newport, Rhode Island, June, 25, 1889.

EDITORIAL NOTES.

TYPHOID FEVER AT LAKE VIEW.—The City of Lake View, Cook County, Illinois, has an epidemic of typhoid fever. It is alleged that there are now nearly fifty cases of the disease within the corporate limits of Lake View. For a long time it has been charged, that the water supply of Lake View was contaminated with sewage, and many families have been buying Waukesha and other spring waters, and it is said to be a fact that the typhoid has only attacked families using the public water supply.

THE annual report of the Health Officer of Brooklyn shows a greater mortality from diphtheria alone, than have died from yellow fever in Florida during the same period. The report shows that 984 deaths occurred in Brooklyn from diphtheria in 1888.

STATE MEDICAL SOCIETIES.—Secretaries of State Medical Societies are respectfully requested to send their names and addresses to the Editor of THE JOURNAL as early as possible.

ANTIPODAL HOSPITAL REFORM. — The proposed new regulations of the Sydney Hospital provide for the appointment of a Medical Superintendent at £500 per annum with quarters and rations, and the reduction of the annual salaries of "resident medical officers" from £250 to £100.

PRIEST AND PHYSICIAN DIE TOGETHER.—A special dispatch from Springfield, Mass., to the New York *Commercial Advertiser* says: Dr. William Breck, a distinguished physician, died suddenly while assisting at the last moments of Vicar-General Healy, of the Roman Catholic diocese of the same city. Dr. Breck was senior surgeon of the Springfield Hospital, an ex-President of the Hampden Medical Society, and a member of the Massachusetts Medical Society. He was also for many years surgeon of the Boston and Albany and New York, New Haven and Hartford Railroads. Dr. Breck was possessed of rare natural gifts for his profession and was especially skilled in surgery.

THE MEDICINISCHE MONATSSCHRIFT.—A. Seibert, of New York, has assumed editorial control of the *Medicinische Monatsschrift*, published in that city. In the circular announcing the change a reason for issuing a medical journal in German on this side of the water is given in the statement that "it is planned to have a complete number of abstracts from the latest medical literature of America and of Germany in each edition, thus enabling physicians here to get a glance at the latest German publications, as well as enabling German medical writers to at once come in contact with American medical productions." These are very excellent objects, but would they not be as well subserved by issue in the English language or publication in Berlin?

NEW CHAIR AT THE PHILADELPHIA POLYCLINIC.—We are informed by Dr. H. Augustus Miller, chairman of committee, that S. Weir Mitchell, M.D., LL.D., has been elected Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic and College for Graduates in Medicine, an additional chair upon that subject being created.

ASSOCIATION NEWS.—President Dawson is informed that the work of the Section on Surgery, of which Dr. Dandridge is President, is already far advanced. A prominent topic in the Section work so far as arranged is the discussion of the question, "Lithotomy or Lithotrity?"

INSECT INSTINCT AND ADULTERATION.—Bees are said by the *Lancet* to be unerring connoisseurs of saccharin substances. To the human palate cane sugar, beet root sugar and saccharin, are pretty much alike, but bees will have nothing to do with the last two. They are partial to glycerine, but discriminate against impure samples. What is wanted in the country is an insect that will instruct inmates of hotels and boarding houses in the mysteries of the butter-dish.

CONVALESCENCE OF SIR WILLIAM GULL, AND SIR WILLIAM JENNER.—The *Lancet* states, under date of the 12th inst. that Sir William Jenner and Sir William Gull are improving in health. The former expected to be able to leave London at the end of the month for a few weeks' rest, and the latter was just able to leave his room.

DR. VON PETTENKOFER KNIGHTED.—Dr. Max von Pettenkofer, professor of hygiene and state medcine in the University of Munich, has been made Knight of the Order of the Crown of Italy, a similar honor to that conferred upon George M. Pullman of palace-car fame.

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OBITUARY.

IRA RUSSELL, M.D., of Winchenden, Mass., died at his residence, Dec. 19, 1888, æt. 74. He was born at Rindge, N. H., graduated at Dartmouth College, 1841, and received his medical degree from the University of New York, 1844. He was surgeon in the 11th Mass. Regulars, volunteered in the war, at the close was promoted. Dr. Russell was a member of the Massachusetts Medical Society and of the American Medical Association, 1858.

C. N. CAMPBELL, M.D., of Dutchess County, N. Y., died Dec. 21, 1888. He was a graduate of the University of New York, 1848. He was a leading physician and had held many offices of trust in the county. Was surgeon of the 115th N. Y. Volunteers in the late war.

THOMAS J. EDWARDS, M.D., of Baltimore, Md., died at his residence of heart disease, Dec. 15, 1888, æt. 48. He was a native of Northumberland County; although an M.D. he devoted himself to teaching a Grammar School.

JAMES A. EMMERTON, M.D., of Salem, Mass., died Jan. 2, 1889, æt. 54. He was a graduate of Harvard. Served as a surgeon in the late war.

THOMAS BRAIN GUNNING, D.S., of New York, died at his residence on Staten Island, N. Y., Jan. 9, 1889. He was called to Washington in April, 1865, to attend the injury to Secretary W. H. Seward, and was a writer of ability in his specialty.

DAVID J. MCKIBBEN, M.D., of Ashland, Schuylkill County, Pa, died Dec. 19, 1888, æt. 65. He was a graduate of the University of Pennsylvania. He served as a surgeon through the war and was promoted Lieutenant-Colonel for meritorious services.

CHARLES L. MINSTER, M.D., of Philadelphia, Pa., died Dec. 14, 1888, at his residence. He was a graduate of the Pennsylvania Medical College under the régime of Professor McClellan.

JOHN J. MORAN, M.D., of Falls Church, Va., died in the city of Washington, Dec. 15, 1888. While a resident of Baltimore, Md., he had the melancholy duty of attending Edgar Allen Poe in his last illness. The Doctor became widely known for his defense of the Poet, and maintained that he did not die of alcoholism.

JAMES SCOTT, of Lebanon, Ohio, died at his residence, Dec. 17, 1888, æt. 73. He was a native of Washington County, Pa. He may not have practiced medicine, but won fame as the author of the Scott Liquor Law of Ohio, and was spoken of as a doctor.

ALFREDRICK SMITH, formerly of Little Falls, N. Y., died in the city of New York, Dec. 14, 1888, æt. 88. He was a native of Saybrook, Conn. He had long since retired from practice.

EDWIN M. SNOW, M.D., of Providence, R. I., died of heart disease, at his residence, Dec. 24, 1888. He was born in Pomfret, Vt., in 1820. Graduated as M.D., at the College of Physicians and Surgeons, New York, 1844. For nearly thirty years he was the able superintendent of the Health Department and City Registrar of Providence.

PASSED-ASSISTANT-SURGEON W. G. G. WILSON, U. S. Navy, died at Philadelphia Navy Yard, Jan. 23, 1889.

JOSEPH L. BODINE, M.D., of Trenton, N. J., died of heart-failure, æt. 49, Jan. 2, 1889.

SOCIETY PROCEEDINGS.

Obstetrical Society of Philadelphia.

Stated Meeting, Thursday, December 6, 1888.

THE PRESIDENT, T. M. DRYSDALE, M.D., IN THE CHAIR.

(*Continued from p. 133.*)

DR. J. M. BALDY said that he had never used electricity in his gynecological practice for the simple reason that he had not felt competent to get the best results, not being an electrician, nor had his observation of the work of others made him desirous of doing so. He had, however, done still better—he had put himself in the way of observing the work of experts in this branch of practice. What he saw at Apostoli's clinic was entirely negative.

DR. T. M. DRYSDALE had not intended to take part in the discussion, but he could not permit what Dr. Baldy had said to go unchallenged. He had had some experience in this matter, having been working at it pretty steadily for the past three years, and he intended shortly to give his results to the Society. He thought that the great mistake in regard to electricity was that its advocates have claimed too much for it, but it must be admitted that many of these claims had been

proven and its positive value established by the results of practice. It is certain, for instance, that in some forms of hemorrhage from the uterus there is no other agent that will take its place. He had seen it cure metrorrhagia when ergot, erigeron, local applications of iodine and, in fact, everything else has failed. Again, he had seen large plastic exudations in the pelvis entirely disappear under the use of currents of electricity. He had used it in only four conditions: pain, hemorrhage, plastic exudations and uterine fibroids, and experience had taught him that there was a good deal in the manner of application of this powerful agent. He had not adopted all of the methods of Apostoli; for instance, he never punctured a uterine fibroid, believing that the practice is a perilous one and entirely unnecessary, for without it he had met with at least equal success with those who used it. In his hands it had proven decidedly successful in the treatment of uterine fibroids, resulting, in many cases, not merely in arresting their growth and checking hemorrhage, but in their entire cure. One of these cases, in which there was a complete disappearance of a uterine fibroid, was reported by Professor Skene at the meeting of the Gynecological Society at Washington. Six years ago a patient of his removed from Brooklyn to Philadelphia and was sent by him to the speaker. She was suffering from excessive hemorrhage, the result of a submucous fibroid about the size of a small cocoa-nut, which he removed by enucleation. She afterwards returned to Brooklyn and had no further trouble until two years ago, when she commenced bleeding again. After being treated by several physicians she came to him. On examination he found a soft, interstitial fibroid tumor about 3 inches in diameter. She could not remain in Philadelphia at the time, but in three months she returned, when the tumor was found to be growing rapidly, while she was greatly reduced by repeated hemorrhages. In October, 1887, the use of electricity was commenced, and in April, 1888, she returned to Brooklyn and was examined by Prof. Skene, who found the tumor had entirely disappeared. He could give many other instances, but should reserve them for a future paper.

DR. JOHN B. DEAVER asked whether the *rationale* of the gynecological treatment is not the same as in that of urethral strictures. In his hands this had proved utterly useless.

DR. JOSEPH PRICE thought it would be just as well if every one would give their bad results as well as good.

DR. H. A. KELLY said he had seen some good results and felt that in a limited number of cases we shall be successful.

DR. B. F. BAER said he was glad to hear Dr. Kelly, as he supported the position which he had taken before the Society at the last meeting. Many of these cases are benefited and practically cured by this treatment, used with other remedies. He did not know the meaning of electrolysis if it was not the destruction of organized tissue by resolving it into its elements, and to get this action a higher power than one would be warranted in using must be applied.

DR. M. PRICE said that he had only found two forms of fixation of the uterus. One is non-inflammatory, the other bound down by inflammatory bands. It was absolutely useless to tell him that a uterus bound down by adhesions could be replaced. It would be as easy to believe that adherent fingers and toes, resulting from a burn or scald, could be relieved, as that electricity applied to the pelvis could release adhesions of the uterus, when it is all that we can do at times to tear them loose with the finger. In regard to massage, it is absolutely absurd to talk of any patient submitting, who has any decency, to a man fingering her vagina, by the week. If there were inflammatory trouble it would do mischief. He had a case where electricity had been used and where all sorts of applications had been made. He was positive that there was pus. The temperature was 103°.

DR. GOODELL could not allow the remarks which Dr. Price had just made to go unchallenged. He believed that massage of the fixed womb could be employed with propriety and without the indecency alleged by Dr. Price. He had, with Dr. Taylor, treated a case in which a pelvic inflammation had been set up by treatment at the hands of an irregular practitioner. She almost died, but finally recovered, with the roof of her pelvis feeling like a hard board. The womb was enlarged and absolutely immovable. She had menorrhagia and constant pain. He began treatment by application of a mixture of carbolic acid, iodine and chloral and by using uterine massage. In doing this one simply passes one or two fingers behind the womb and catching it from above with the other hand, rocks it from side to side and backwards and forwards, stretching the adhesions and separating them if possible. Dr. Taylor administered electricity locally. To-day she is in rude health. He had closely watched the growth of electricity and had always felt that there were remedial virtues in the agent which would be developed. Yet while he believed that we could get a great deal of good from it, he did not believe that it would cure pus tubes or suppurating ovaries, neither does he believe it will remove organized adhesions, although he felt sure that it would cause the absorption of recently deposited lymph which is not organized. He knew from unquestionable facts that in fibroid tumors in which hemorrhage is a prominent symptom, electricity an admirable agent, but he was not ready to accept the statement that it will reduce the size of fibroid tumors either permanently or without subjecting the patient to more risk than the opera-

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tion of oöphorectomy. He knew of one of his friends who has had two deaths, another has had one if not more deaths. A third applied electricity to the womb of a lady in his office and she died of inflammation a few days later. A fourth friend met with the same disaster, although he is an authority on electricity. On the other hand he knew the wife of a physician who had been treated in various ways, without benefit, for hemorrhage coming from a fibroid tumor. The curette, however, had not been used. Three applications of electricity cured her. Her husband assured him that he had two or three other patients cured in the same way of hemorrhage. He thinks there is a great future before electricity, especially in those cases in which operative procedures should not be resorted to, and in cases of recent pelvic exudation.

Dr. M. Price said that Dr. Goodell started out with a very pretty case indeed. The pelvic abscess was evacuated and all that was risking her life was removed. Unless there was multiple abscess the woman was safe after this discharge.

Dr. J. M. Baldy did not mean to deny that electricity would relieve pain and hemorrhage in vascular tumors. Electricity is, however, a dangerous remedy used indiscriminately and in large doses, where we do not know the exact condition of affairs.

Dr. J. Price said that, in regard to the mortality, Dr. Chadwick, of Boston, says that he has had two fatal cases out of eighteen and that he has given up its use. With thirty-one hysterectomies in Tait's experience, and no deaths, and thirty-eight in Keith's, with three deaths, we see that the mortality following electricity has been greater than that of hysterectomy in the hands of such men as Tait, Keith, Bantock, Thornton and others. He had a case similar to the one of Dr. Goodell's. The pus was evacuated. He did not attempt to release the fixed uterus. The woman is now pregnant.

Dr. Taylor said that his experience had been chiefly with pelvic deposits. He had used electricity very little in antiflexion. In these cases rapid dilatation has relieved the trouble in a shorter time. In menorrhagia the curette answers the purpose sufficiently well, and in seventy per cent. of the cases it relieved the trouble. In regard to gonorrhœa, he would simply state that he did not deny that it may be a cause of pelvic trouble. He was very glad to hear of Dr. Drysdale's success in in the treatment of fibroids, but he did not think we could conceive of an electrolytic action sufficiently extensive to cause breaking down of a fibroid unless there was an electropuncture.

Dr. T. H. Bradford said that if Dr. Baldy had seen the cases to which he had referred, at a later period he would have found that they had been benefited.

Suffolk District Medical Society.

SURGICAL SECTION.

Stated Meeting, January 2, 1888

PRESIDENT, EDWARD H. BRADFORD, M.D., IN THE CHAIR.

Drs. G. F. Grant, D.D.S., and H. A. Baker, D.D.S., presented a paper on

THE TREATMENT OF CLEFT PALATE,

who referred to the history of the use of artificial appliances in the treatment of this deformity, and exhibited the apparatus and patients wearing it.

Drs. Charles B. Porter and J. Collins Warren opened the discussion in reference to the value of surgical interference.

Dr. G. F. Grant referred to twenty-one years experience in the treatment of cleft palate by mechanical appliances, beginning just after the appearance of a paper by William Suersen, of Berlin, in 1867.

The results of surgical operation are unsuccessful because, 1, under the most favorable conditions there is no union of the divided palate; 2, there is not so much improvement in speech as was hoped; 3, there is an increased difficulty in the adjustment of, and mechanical appliances afterward.

In 1873 and 1874, this subject was occupying the attention of Drs. Bigelow, Warren, Hodges, and Cabot. At this time Dr. Grant had his first success with a mechanical appliance, in the case of a patient 14 years of age, in whom Dr. Warren advised no operation, but an artificial plate. After its application there was a noticeable improvement in speech directly, and there was a gradual increased improvement for a year, when it was very marked. For the last ten years, the patient has been a teacher in the public schools of one of the large towns in Massachusetts.

Since 1871, Dr. Grant has treated 115 cases of congenital fissure with the result justifying the conclusion, that there is no reasonable doubt as to the success of the appliance. After the use of an appliance the whole system of speech is so changed that it is always retained, even on removal of the appliance, and thus the patient can form his words better than he did before he had the appliance introduced.

Dr. Grant thinks that the importance of the constrictor laryngeus muscle in the treatment of these cases is overestimated. According to his experience, the appliance can be adjusted with success as early as the seventh year of age. He emphasized the importance of a proper operation on the hare-lip, which generally accompanies the defect of the palate, so as to secure the greatest mobility, since a short and inflexible lip-wire interferes with the articulation and the obtaining a cast of the condition.

In illustration, Dr. Grant exhibited a patient for whom he had adjusted an appliance. His replies to questions from the members of the Society, as well as his reading both with and without the appliance, testified to the great improvement in his speech.

DR. H. A. BAKER said that the first mechanical appliance adjusted and worn successfully in a case of fissure of the palate, was that devised and manufactured in 1841 by Dr. Stearns, a physician, for himself. His apparatus was very complicated and had many springs. Moreover, he did not select a permanent material. Soft vulcanized rubber which he used has a life of only 2½ or 3 months to a year.

In 1860 Dr. Norman W. Kingsley simplified Stearns' apparatus and used metal moulds instead of wooden in its construction, thus securing a smoother result with a better finish.

In 1867 William Suersen, of Berlin, used permanent materials of hard rubber, and his obdurator had a posterior wing going to the posterior pharyngeal wall, which was closed by the muscles.

In 1881, Dr. Baker made his first successful appliance, and since then he has had upwards of a hundred cases. This apparatus was made of hard rubber and had hinges to aid the levator muscles in bringing it up to the posterior pharyngeal wall. The patient was 12 years of age, and the operation of staphylorraphy had been performed unsuccessfully. The plate was made eight years ago, and some improvement in speech was noticed at once, and after training as to the proper way of using the lips and tongue there was much more and faster improvement.

In illustration Dr. Baker exhibited several plaster models with the appliances in position, as well as two patients, who showed a marked improvement in speech when wearing the appliance.

PROFESSOR BUTTERFIELD stated that he had been a teacher of persons afflicted with vocal defects for the last eighteen years, and that in connection with the various phases of stammering, stuttering, etc., he was brought into association with persons with defective palates. After the adjustment of a plate, some people will develop the best they can do instinctively and intuitively, while others will not adapt themselves to its use for a long time. A person with a musical mind will at once seize upon the vibrations of the voice and adapt them intuitively. The Professor believes there exists a condition, which may be called sound-deafness as compared to the term color-blindness, and thus it is that people learn so very differently. He then referred to Bell's visible speech, which consists of a system of phonic symbols, by means of which, one may learn to speak correctly, even unknown languages; he himself had been tested in thirty different languages. When a person with fissure of the palate has a plate introduced, he must learn what the ear never found in his own voice. It is only necessary to learn the proper position of the organs. It is much more difficult to learn to get a good quality of voice than to articulate, for this is dependent on the relative position of the cavities. It is most difficult to wake up a response in the anterior cavities of the nares. Unity of sound is due to vibrations in all of the cavities in unity.

DR. CHARLES B. PORTER said that he came forward, not as an opponent of the views that had been advanced, but because he believed that the time has come to review the subject of staphylorraphy, which now is so rarely performed. He wished to consider it from several standpoints.

1. Is the operation feasible and in what cases? Trelat says that the operation should be performed in any case unless the extent of the fissure is too great, unless there has been previous operation, or unless the parents object.

2. At what age? Many authorities were quoted, some giving the age as early as 14 months and others not until 16 years. Dr. Porter's own idea would be at the age when the child has sufficient teeth to support a diaphragm to keep the pressure of the tongue away from the wound.

3. The method of operation. This would be comparatively simple, *e. g.*, refreshing the edges; lifting away from the bone the mucous membrane with the periosteum by means of a periosteum elevator; and putting in stitches every quarter of an inch. The sutures may be of silk or of silver wire. Lateral incisions parallel to the line of union will relieve tension. A diaphragm should be inserted to protect the stitches from the tongue.

4. Subsequent training in the formation of the voice is the most important of all things and without it there can be no success.

Dr. Porter has operated upon two cases: one at 14 months which did well until about the sixth day, when the mother of the child gave it a hard crust of bread and the stitches were pulled out. The other case was aged 16 years. Nine sutures were introduced and these were protected by a gutta-percha diaphragm. This case did well and was exhibited. There was a great improvement in speech.

DR. J. COLLINS WARREN said that no operations for staphylorraphy were done previous to this century. In the early part of the century Rue began to do the operation. Later it was done by Dr. John Warren, Dr. Bigelow, Dr. Gay, Dr. Mason Warren and others. Dr. Mason Warren (the speaker's father) did a great many operations, having modified the method. The difficulty was in the retention of the soft parts, owing to the peculiar obliquity of the bony parts. Dr. Warren seized the uvula with a pair of long forceps and drew it firmly across the fissure, when the posterior pillars became tense. Then with a strong

pair of curved scissors he divided *all* of the tense tissues, whether muscles or not, after which it hung loose, and the same thing was then done on the other side. With the hard palate the difficulty was to bring the surfaces together. The edges were pared with a pointed, double-edge knife, and the mucous membrane was separated almost to the alveola process, after which it was united by sutures. Dr. Warren did about 100 operations. Later he did not attempt to unite the entire length of the fissure, believing that the chief essential is the restoration of the arch with enough soft palate for a valve.

Dr. Warren showed the case of instruments with which Dr. Mason Warren had performed all of his operations, upwards of 100 in number. The sutures he used were silk, which had been soaked in the compound tincture of benzoin, which was claimed by some to have antiseptic properties, but the chief advantage was that the knot would not slip.

Drs. Edward Reynolds and R. W. Lovett reported

REMOVAL OF NASAL OBSTRUCTION. RESULTS IN 112 CASES.

Dr. R. W. Lovett said that the cases to be reported were the ordinary patients that presented themselves for treatment at the Dispensary during the three months' service of Dr. Reynolds and himself. Three conditions were chiefly observed:

a. Chronic folliculitis.

b. Congested mucous membrane with abundant secretion.

c. A dry, shining mucous membrane.

In general the treatment employed involved the destruction of the mucous membrane of the turbinated bones by cauterization by means of chromic acid. In 75 cases this treatment was employed.

In 33 check cases, in which the conditions were as nearly identical as possible, the ordinary treatment by douches, etc., was recommended.

In 5 cases there were exostoses or deviations of the septum.

Of the 75 cases that were cauterized with chromic acid, 15 were cured; 38 were much improved; 2 were not benefited, as was ascertained after three months by mailing addressed postal cards with questions to be answered and returned. The remainder were not heard from.

Sixteen of the cases were cauterized but once, and the remainder, 21, three or four times according to the amount of hypertrophy. Only one nostril was treated at a time, and the second application, if necessary, was delayed about a week. Of the 33 check cases, which had conservative treatment, none received any benefit, as is usually the case with this class of patients. But two of these cases were burned, after about three months, with a cure for result. The exostoses were removed.

Dr. Edward Reynolds said that the mucous membrane of the nose is for the purpose of tempering the air before it reaches the lungs. No matter what is the condition of the external air, it enters the lungs at a temperature of about 30° C. (86° F.), and saturated with moisture.

The turbinated bones divide the anterior nares into three main compartments, which are normally narrow spaces, and the mucous membrane which surrounds these spaces, is so nicely supplied with blood-vessels that it is almost an erectile tissue. A series of acute attacks may make a chronic swelling of the mucous membrane, and this may cause supplementary mouth-breathing which, in the later stages, may be substituted by mouth-breathing itself.

The operation, which was done at the Dispensary in the cases to which reference has been made, is simple, and but few instruments are necessary. A solution of cocaine (4 per cent.) is first applied to the nostril by means of a hand-spray, and then deliquesced crystals of chromic acid are applied to the whole of the lower turbinated bone (unless it is so large that it is thought wise to do only the inner half the first time), by means of cotton or an applicator made of a flattened piece of copper wire. If examined with a nasal speculum the eschar is at once seen.

If the other nostril needs attention the application is delayed from three days to a week, and if only one is affected we waited till the eschar came away before a second application, which was then made if necessary. The eschar caused by chromic acid is very superficial, and this is the great advantage of its use for this purpose. After the operation it is difficult or impossible to detect any scar.

Dr. Vincent Y. Bowditch said that he had used the chromic acid in treatment of this class of cases for over a year in his office practice, and that he found it of great advantage in clearing obstructions from the nose, which is the true respiratory organ. There are many enthusiasts who remove nasal hypertrophies for everything, and thus weaken the cause. Some even claim that asthma should be treated in this way.

Dr. Thomas A. De Blois said that the nasal hypertrophies appear on both the anterior and the posterior ends of the turbinated bones. Those which are on the anterior ends are the ones which are benefited by the chromic acid treatment. In its application the doctor prefers to use a round rather than a flat probe, and he is accustomed to cauterize in lines only, by drawing the end of the probe over the surface where it is desired, and in this way it is regulated, so that the application can be stopped when enough has been destroyed. The hypertrophies in the posterior nares are apt to be large, puffy masses, which may be removed entire with a snare, after which they shrink very much, those which have appeared as large as the thumb shrinking to the size of a pea.

DR. HENRY L. MORSE said that many of the cases which had been reported were sent to the throat department from the ear department of the Dispensary, because he believed that a free opening through the nose is very important in treatment of diseases of the ear. In the case of children nasal obstruction will increase the ingrowing of the drum of the ear, and the nose must be attended to, or else little can be gained for the ear. He has frequently observed that the Politzer douche has cleared the nose when the most thorough blowing would not succeed.

DR. GEORGE A. LELAND said that he had obtained good results from this method of treatment. There is a certain normal erectility to the mucous membrane of the nose, and hence it is not best to burn too much, lest the condition of dry catarrh follow. Dr. Bosworth, of New York, applies the chromic acid by fusing a bead on the end of a silver wire. Dr. Leland has found that the reduction of the mucous membrane of the turbinated bones has cured the condition known as "hay fever." He once saw a patient who had suffered for twenty-three successive years. Not having at hand the chromic acid, he curetted the mucous membrane from the turbinated bone. It was followed by much bleeding, but there was no "hay fever" that year nor since, and it was done four years ago. The inferior passage has been called a continuation of the Eustachian tube.

DR. REYNOLDS showed a number of skulls that had been cut in such a way as to illustrate the swelling of the mucous membrane, the exostoses, and the deviations of the septum.

DR. PORTER exhibited a beautiful specimen of surgical kidney following a stricture of ten years' duration. The urinary apparatus had been dissected out entire, and showed the stricture of the urethra, the bladder with its thickened and hemorrhagic mucous membrane, the dilated ureters, and the enlarged kidneys, consisting chiefly of dilated pelves and calices, the cortices being nearly all destroyed.

DOMESTIC CORRESPONDENCE.

LETTER FROM NEW YORK.

(FROM OUR REGULAR CORRESPONDENT.)

Does the Yellow Fever Germ Disappear?—Alleged Malarial Complication of the Florida Epidemic—Gibier's Report to the New York Academy of Medicine—Unusual Methods of Acquiring Syphilis—Hospital Sunday Collections—Officers Elected.

Dr. Paul Gibier has just presented the report of his experimental researches in yellow fever, made recently in Florida, under the direction of the French Government, to the New York Academy of Medicine, and it is to be noticed that in this report he reasserts his claim to have discovered the microbe of the disease in the intestinal canal. The occasion was an interesting one at the Academy, and the paper was listened to with the closest attention, but, strange to say, there was not, with the exception of the President, Dr. A. Jacobi, a single pathologist of note present, and there was not a word of discussion upon it.

Dr. Gibier stated that when he reached Jacksonville the epidemic had already begun to diminish, but, through the courtesy of Surgeon-General Hamilton and Dr. Porter, Chief of the Bureau of Medical Relief, he was enabled to examine as thoroughly as possible several of the subjects there.

Before presenting the details of the cases he observed he said that he thought it well to take up the question whether the recent outbreak in Florida was veritable yellow fever or not, since the relatively small number of deaths and the fact there were proportionally more cases among the blacks than the whites had caused some physicians to entertain doubts in regard to its true nature. As to the prevalence of the disease among the blacks, yellow fever had been observed among them, as well as the white population, in previous epidemics in the United States. Moreover, in Jacksonville most of the white families left the town a few days after the outbreak of the epidemic, leaving few but negroes remaining. Still, it was remarked that as a general rule the symptoms were less grave and the mortality less considerable among the latter that among the whites. He believed it was necessary, therefore, to examine, *first*, whether it was really yellow fever that had prevailed at Jacksonville; *second*, in case of a negative reply, whether it was a new disease; *third*, whether all the cases registered were genuine (in other words, if there were not existing at that time several kinds of fevers, such as dengue, bilious or malarial fevers); and, *fourth*, whether yellow fever might not have assumed, at least in a certain proportion of cases, a kind of typhoid character, owing to the malarial nature of the country.

In answer he was able to say that many cases of genuine yellow fever were observed, and that he personally saw some cases which were absolutely characteristic, judged both by the symptoms and anatomo-pathological lesions; but at the same time he thought that it was not irrational to admit that a large number of cases of bilious and malarial fevers existed simultaneously. In illustration, he referred to the case of a negro upon whom he made an autopsy at St. Luke's Hospital, Jacksonville, where the bowels were normal, the liver black, instead of presenting the characteristic color, and the spleen hypertrophied; so that whatever else the patient may have had, he certainly did not have yellow fever. At the temporary hospital Dr. Solace Mitchell showed him the ther-

mometric charts of his patients, and it was noticeable from the intermittent form assumed by the fever, that the paludial element had stamped, as it were, its mark upon it, and made it assume one of those hybrid forms to which Prof. Verneuil, of Paris, had called attention. It was likely, he thought, that the cases in which the diagnosis was doubtful were found, not in the center of the town, but in the suburbs and on the opposite bank of the St. John's River (South Jacksonville) where the sanitary conditions are highly favorable to the fostering of malarial fermentations. The case of the negro referred to occurred across the river, and it was, as he believed, of the nature of pernicious fever.

As to his bacterial observations, Dr. Gibier said that while the cases were few in number the results entirely confirmed the more numerous ones made by him in Havana during 1877 and 1878. Having given a description of his technique, a special feature of which is the use of a curette which is plunged into the parenchyma of the viscera to be examined, he proceeded to give an outline of the observations which he made on individual cases. The specimens taken from the first two became altered after death, owing to a delay of eight days in receiving his instruments. They presented, however, the characteristic lesions of yellow fever. In the third case the intestines did not contain the bacillus which he stated that he had found in such large quantity in cases at Havana; and, commenting on this circumstance, he said that if this bacillus was really the cause of yellow fever, we must admit that under influences as yet unknown it might disappear after having produced the special intoxication; the same thing being observed to a large extent in the case of the comma bacillus of Koch in Asiatic cholera. As in his former observations, the blood did not contain any microbe, and he added that never in a single instance did the microscopical examination of the blood, either in its fresh state or in various preparations, ever show anything abnormal.

As regards the different microörganisms which developed in the cultures of the viscera, the number of the colonies was so small, and their composition so various, he said it had to be admitted that an accidental infection took place during the manipulations; but with the cultures of solid media there was no reason to fear the same errors as with the liquids. Although he admitted the possibility of the introduction of microörganisms into the viscera, owing to the alterations of the mucous membrane, he considered the cultures of the liver, spleen and kidneys in this instance as having remained sterile.

In case No. 4 he considered it very doubtful whether the patient died of yellow fever, and it is unnecessary here to detail the description of the autopsy and the results of his cultures. In the fifth case, a negro woman, the stomach and bowels contained a large quantity of black liquid, acid in the stomach, but decidedly alkaline in the small intestines, and neutral in the large. The kidneys, spleen and liver contained a certain number of diplococci, the colonies of which spread quickly over the surface of the agar-agar, like a transparent cloud, and discolored the gelatine very rapidly. This was the first time that Dr. Gibier had found this microörganism, and it was also the first time that he ever found a microbe in the parenchyma of subjects dead of yellow fever; but in this connection he called attention to the fact that the autopsy was made eight hours after death, in a surrounding temperature relatively high, and while the interior of the subject was still warm: all conditions very favorable to the growth of the bacteria of decomposition. Some particles of the contents of the bowels, taken from different portions of the track were diluted with sterilized water, and with them he made cultures on gelatine in his matrasses. Notwithstanding the large dilution, the colonies were so numerous that after twenty hours the gelatine was entirely dissolved in the first two matrasses. In the third (fourth dilution), in 106 colonies he counted 98 which liquefied the gelatine, The important point to which he desired to call especial attention, was the fact that all these liquefying colonies were formed by the microbe which he had isolated at Havana.

In the sixth case observed, a typical one of yellow fever in a white male, æt. 40 years, the cultures of the blood and the renal, splenic and hepatic pulps remained absolutely sterile. Cultures of the urine contained some micrococci; but the patient had been catheterized several times during his illness. The cultures of the contents of the bowels presented only common microbes. While this was unquestionably a case of yellow fever, the conclusion he reached was that the pathogenic bacilli had disappeared from the intestines by the time death supervened.

Case No. 7 was the one previously referred to, in which the patient was believed to have died of yellow fever. The negro lived in the swampy locality of South Jacksonville, and death occurred only twenty-four hours after the initial chill, which was very violent and followed by a very high fever. In this case while the cultures of the blood, kidneys, spleen and liver remained sterile, those of the intestinal contents were strewn with colonies almost exclusively composed of large and long bacilli, which did not dissolve the gelatine. Dr. Gibier remarked that he was unable at present to say what was the significance of these long bacilli, which grow at the surface of the plates, with the aspect of a light pellicle more or less irregular, and in the interior of the medium of culture were regularly spheroidal. He reported the fact only, with the hope

that it might perhaps be of service in guiding some further researches.

He considered it a remarkable circumstance that out of the three undoubted cases of yellow fever in the above series, it was the one in which death was most rapid (occurring after four days), that contained the black and characteristic matter in the intestines and presented in such an extraordinary abundance, and almost exclusively, the same bacillus which he had seen in several yellow fever subjects in Havana, and which Dr. George Sternberg also found in these cases of yellow fever in which he looked for it. The cultures of this bacillus, he said, exhaled an odor quite similar to that which he had remarked several times in black vomit. Furthermore, biological characteristics of the microbe were entirely in accord with the physiology of yellow fever itself, and in certain conditions, as previously shown by him, it blackened bodies in contact with it to such an extent that some of the liquid cultures certainly had the appearance of black vomit. He did not claim, however, that this last character, which did not always appear, was pathognomonic.

On the whole, he thought that he was correct in saying that the presumption that this bacillus was the cause of yellow fever was tending to become a certainty. The fact that in the case in which the autopsy was made early after death, both at Havana and Jacksonville, the blood, liver, spleen and kidneys, had been constantly found free from microbes, added support, he claimed, to the theory which he had advocated, that yellow fever is an intestinal infection, which must be treated from the very beginning with evacuants and disinfectants such as bichloride of mercury, naphthaline and tannic acid.

Two objections have to be answered, viz.: 1. How is it that the microbe supposed to be pathognomonic is not found in every case of yellow fever after death; and if it has disappeared, how shall we explain the persistence and the aggravation of the accidents? 2. If yellow fever is a disease the germ of which grows exclusively in the intestine, how shall we explain the albuminuria present?

In reply he said that it was known that when a microörganism had saturated any medium, its growth ceased, and that if another microbe was introduced and grew in the medium transformed in that way, the first often disappeared. This would explain the possibility of the disappearance at any moment of the microbe of yellow fever. He proposed at the first opportunity that he could get to analyze the dejections of several patients from the first day to the last, and he said he should not be surprised to find his microbe only in the first period of the disease, at least in a certain number of the cases. As to the persistence and eventual aggravation of the accidents, they very likely depended on the more or less grave importauce of the lesions. The latter were due to venomous products, ptomaines, secreted by the microbes and absorbed by the blood-vessels of the intestine, and more especially by the radicles of the vena porta. We know that the cultures showed the absence of bacteria in the liver. This gland, into which the blood of the vena porta first flowed, underwent, nevertheless, a fatty degeneration, analogous to that observed in certain cases of poisoning *per ingesta*. The spleen, on the contrary, was of normal appearance, unless there was a malarial complication or secondary infection. If the kidneys were congested and allowed the escape of albumen, it did not follow that they were directly attacked by the bacteria. In typhoid fever, for instance, which might be considered as an infection primarily intestinal, albuminuria was observed without there being found in the urine, at least in the beginning, the specific bacillus of the disease. Certain kinds of poisons also produced albuminuria, such as lead, phosphorus, cantharides, etc.

In conclusion, he stated that the experiments which he had made on his bacillus had already given the explanation of the fact that yellow fever remains endemically on the seashore of the hot countries, and not in the interior regions; and also of the fact that an infected vessel may hibernate in glacial regions without losing the ability to communicate yellow fever when she returns to a hot climate. Other experiments, which he intended to publish later, had induced him to think that if the bacillus in question was really the cause of yellow fever, it would not be impossible to protect against the terrible disease the populations of countries exposed to epidemics of it.

At the conclusion of Dr. Gibier's paper Dr. L. Duncan Bulkley read one on *Unusual Methods of Acquiring Syphilis, with Reports of Cases.* He desired to call attention, he said, to the fact that not infrequently syphilis was acquired by means not only entirely innocent on the part of the sufferer, but which were also quite unexpected; and his object was to put the profession and the community on their guard against this unseen danger, to remove to some extent the odium commonly associated with the disease, since it was so frequently entirely undeserved, and to endeavor to create a public opinion that would before long insist on placing syphilis where it belonged, among the infectious diseases, so that it might be brought under the careful surveillance of the public authorities.

In the paper were recorded no less than seventy-five cases of extra-genital chancre, the largest number ever reported by any American observer, and he believed that the relative frequency of the contraction of syphilis otherwise than by sexual intercourse was by no means sufficiently appreciated. The innocent transmission of the disease, he said, had given rise to dozens of epidemics in

the past, and many thousands of cases in which it had occurred had now been recorded. It was somewhat startling to learn that Fournier had recently made the statement that in about 25 per cent. of all the cases of syphilis in females which came under his observation the disease was innocently and undeservedly acquired. Yet this experience was corroborated by that of Ricord, and Dr. Bulkley said that in his own private practice this class of cases amounted to as much as 40 per cent.

Of his 65 cases of extra-genital chancre, 34 were in males and 31 in females. In 30 the chancre was on the lips, in 7 on the fingers, in 6 on the breasts, in 6 on the tonsils, in 5 on the tongue, in 3 on the cheek, in 2 on the chin, and in 1 each on the nose, eyelid, ear, hand, forearm and sacral region. He has divided the unusual methods of acquiring syphilis into three main groups as follows: 1, syphilis economica; 2, syphilis brephotrophica; and 3, syphilis technica. The first, *syphilis economica*, he said, was acquired in the ordinary occupations of life, and it in turn was divided into three main groups, viz.: 1, domestic transmission; 2, industrial transmission; and 3, personal transmission. Many cases had been recorded in which the disease was contracted from knives, forks, spoons, drinking-cups, etc. A very common method was by means of tobacco pipes smoked by different persons in succession, and one such case occurring in his own experience he related. Cigars are also a common source of infection, and he said that some time ago he had reported two well authenticated cases of this kind occurring in physicians. More recently he had met with a third case, in which, however, the history was less certain. Various articles of personal apparel have been known to convey the disease, and he gave an interesting account of a case of his own in which it was contracted from a bathing-suit. In this instance, in which the disease was situated in the sacral region, there could be no question that the suit was infected with virus derived from mucous patches on the person of some previous wearer.

Bedding, toilet articles, opera-glasses and canes, he said, had all been known to convey the infection, and the next case that he related from his clinical experience was one in which the chancre was situated on the tongue and was contracted from pins placed in the mouth. One physician had told him of a case in which caustic used on a syphilitic sore had carried the poison, the virus probably adhering to the caustic holder. Dr. Bulkley said that he had never been able to hear of a single instance in which the disease was contracted from privy seats or urinals, popularly supposed to be such a common source of infection.

The second group of *syphilis economica* embraces all cases of industrial transmission during or by means of various trade occupations. Glass-blowers' syphilis is one of the most common instances of this, and he has collected 162 cases of it. Assayers and goldsmiths are also liable to become infected through their occupations, and musicians from their instruments. Tacks, pins and coin have been known to convey the poison, but no case is as yet on record in which it has been alleged that the disease has been contracted from paper money or from postage stamps. Dr. Bulkley said that laundresses were commonly supposed to be peculiarly liable to infection from the clothing of syphilitic subjects, but in reality this was not the case, since the fact that the hands were so constantly in warm water rendered absorption difficult.

In the third group is classed personal transmission by kissing, biting, etc., and next to the venereal act kissing is at the present day the most frequent cause of syphilitic infection. In this way children become infected by their parents and young women by their lovers, and he related an instance in which syphilis was given by the same man to two ladies to whom he was successively engaged. Biting and tooth-wounds also sometimes convey the virus of syphilis, and one case is on record in which it was purposely transmitted in this way from spite. Other sources of infection that might be mentioned, he said, were scratching, pinching and innocent contact with syphilitic patients in bed or while carrying such patients.

In the second class, *syphilis brephotrophica*, Dr. Bulkley makes two groups, viz.: transmission from the nutrition of infants, and transmission from general attendance upon infants. In a village in France no less than forty cases of syphilis were once traced to a single child. Articles used in the hand-feeding of infants, and in the general care of infants' articles and in the nursery toilet, combs, napkins, etc., may be the means of infection, while the disease is sometimes transmitted through scratches and tooth-wounds by infants.

Syphilis technica is that which arises from body-service by physicians, nurses and attendants. It comprises a large number of sub-groups, but the principal are the following: 1, where the operator is the victim; 2, where the operator is the syphilofer; and 3, where the operator is the medium. There are almost numberless instances on record in which the physician has contracted the disease from a syphilitic patient. It is sometimes acquired during operations and sometimes in dissectiing; while not infrequently stndents become infected through manipulative procedures. The largest proportion of cases is among accoucheurs and midwives. In one case that came under Dr. Bulkley's observation a lady contracted a chancre on the finger from dressing the eye of a relative affected with syphilitic disease. Many instances are known in which chancres on the eyelids, nostrils and lips have been caused by carrying the soiled fingers to these parts; and physicians some-

times contract the disease from syphilitic patients coughing in their faces, or while engaged in practicing artificial respiration on newborn infants.

The second group, where the operator is the syphilofer, is a very large one. Here the operator communicates his own syphilis in performing some body-service; and some years ago, in Russia, a female quack infected quite a large number of individuals with the disease while engaged in removing foreign bodies from the eye with the tip of the tongue. Dr. Bulkley said it was also a fact that two similar cases had been reported in this country.

In the third group of cases the operator is the medium, carrying the poison from one patient to another. Instances of this are well known in connection with vaccination, circumcision, transplantation of teeth, wet-cupping, and minor operations. Dental instruments sometimes convey syphilitic virus, and he said he knew of three cases in which this was done through the agency of razor wounds. Twenty-five observers have reported cases of syphilis originating from Eustachian catheterization, and about sixty such cases have been attributed to a certain ear specialist in Paris.

It could, therefore, readily be seen, Dr. Bulkley said in conclusion, that syphilis was a frequent source of unseen danger, and that it was by no means always a venereal affection. As we learned more of the disease it became more and more probable that it was much more common than was generally supposed. The only wonder, however, considering the varied sources of infection, was that the cases were not more frequent than they really were. The prevention of this great evil claimed, consequently, the best thought of the community and the profession.

The total amount raised from this season's hospital collection up to the date of the annual meeting of the Hospital Saturday and Sunday Association, January 21, was $40,345. On this occasion the General Agent of the Association stated that the final amount of the collection would be larger than that of last year, which was about $50,000, and that it would probably reach nearly $52,000.

At the annual election of the New York County Medical Association the following officers were elected for the ensuing year: President, Dr. Charles S. Wood; Vice President, Dr. George Tucker Harrison; Recording Secretary, Dr. P. Brynberg Porter; Corresponding and Statistical Secretary, Dr. Augustus D. Ruggles; Treasurer, Dr. John H. Hinton; Member of the Executive Committee, Dr. S. B. Wylie McLeod.

P. B. P.

THE meeting of the American Medical Association at Newport, R. I., promises to be the best in its results, and to have the largest attendance of any yet held.

LETTERS.

Medical gentlemen writing to the Editor of THE JOURNAL will please conform to the rule requiring MS. to be written on one side of the paper, to take pains to write the names of persons and places legibly, and to send their own names as a guarantee of good faith. In changing address subscribers will please give old address.

Pneumonia from Contusion? Is there a Lung Concussion?

To the Editor:—Can we have a pneumonia caused by an injury to the chest-wall, presenting the physical signs of that malady, with few, if any, of its rational or constitutional signs? If so, how can we account for the absence of its commonly attendant symptoms? These questions are suggested by a case which recently occurred in the practice of my friend, Dr. John Vander Laan, of this city, through whose courtesy I am permitted to give the following history:

G. G., a Hollander, æt. 45, of good habits and excellent health, while working on a pile driver, June 23, last, fell with the tower to the ground, a distance of about eighteen feet. He struck on his feet, but losing his balance fell on his right side against a pile of lumber. He was carried home unconscious. His physician saw him about two hours after, when he had fully regained consciousness. No external signs of injury could be detected. He complained of pain along the spine, from the cervical to the sacral region; over the right hypochondrium, and the epigastrium. There was numbness and tingling of the feet and legs. Aside from this, the general sensations were normal. There was no vomiting, no hæmoptysis, no pain except in the right side on deep inspiration. Pulse was 110; respiration 24; some evidences of shock. Auscultation and percussion revealed nothing. Left pupil was somewhat dilated. He rallied under appropriate treatment so that on the 24th he was quite comfortable. The pulse was still rapid and wanting in volume and tone. The temperature was normal. The pain in the right hypochondrium persisted, and the patient complained of epigastric distress. Pulse still rapid; respiration same as on day before, but more shallow. Movement of right side less free on account of pain. Negative results from auscultation and percussion.

On the 25th, the second day after the accident, the temperature rose to 101° F. The other symptoms remained the same. Bowels moved by aid of a laxative. The patient felt so well it was not necessary to call next day. He continued to improve, so that on the 27th he was told no more calls would be made until sent for. Examination at this time showed the left pupil still dilated; pulse 90; respiration 22; temperature 99°. The appetite was improved. Bowels moved normally. There was free perspiration. The limbs were warm, could be moved with comfort, but were still somewhat numb. There was some

epigastric tenderness and pain in right side on movement. There was no cough; no expectoration. Negative results from auscultation and percussion. Improvement continued until the afternoon of June 30, when the patient began to complain of dyspnœa and epigastric distress. He was seen again on the morning of July 1, when it was found that there had been a consolidation of the base of the left lung posteriorly. There was dulness over the region; bronchial breathing; crepitant râles. No cough or expectoration. Pulse 110; temperature 100°; respiration 26. There was profuse sweating and extreme thirst. No trouble could be discovered in the right side. Heart sounds more normal. Pupil still dilated. On the 2d, the left side was found to be clearing up, but examination of the right side revealed dulness over the lower two-thirds posteriorly, together with bronchial breathing and crepitant râles. The temperature was normal; pulse 120, weak and lacking in volume. Heart sounds were normal but labored. Cough and expectoration were still absent. On the 3d, percussion elicited dulness over the entire right lung with bronchial breathing, but no râles. The temperature was 98°; respiration 34; appetite was lost. There was great thirst, and the patient complained of being excessively hot when the extremities were cold to the touch. There was a slight hacking from time to time, as if clearing of the throat. The patient suffered no pain. The heart's action was labored. On the 4th and 5th, the symptoms continued about the same, except perhaps more marked. There was a growing loss of power in the heart's action. Pulse 130, regular and weak; temperature 97.5°. On the 6th, the radial pulse could with difficulty be detected. There was intense dyspnœa. The extremities became still more cold to the touch, though the patient could scarcely tolerate any covering over them. He complained of excessive warmth. Physical signs were the same, except the presence of a few moist râles at the base of the left lung. The apex beat seemed crowded about two inches and a half to the left. July 7, an aspiration needle was introduced into the right side, but failed to discover any fluid. I saw the patient with Dr. Vander Laan on the afternoon of this day. He was evidently at that time *in extremis*. The extremities were cold and pulseless. He was cyanosed. Breathing was labored and shallow. The heart was weak; the second sound almost wholly lost. There seemed complete consolidation of the right lung with some congestion of the base of the left. The mind was clear, and had been from the first. There was still dilatation of the left pupil. The patient had scarcely slept since the accident. He died that evening. Unfortunately an autopsy was not allowed.

This case has seemed to me a particularly interesting one, and as having some bearing on the question of the local or constitutional nature of pneumonia, if it be a pneumonia, as its physical signs would seem to have it. Loomis, arguing for the constitutional nature of the disease, claims that a traumatism never produces a lobar pneumonia. It is to be regretted that a post-mortem examination could not be had in this case, but if physical signs alone can be relied on, we had here a pathological condition of the lung similar to that existing in that malady, and it seems to me a case in point of lobar pneumonia of traumatic origin. The nervous pneumonia observed throughout would seem to indicate that the force of the injury was spent upon the cerebro-spinal system. It is a well-known fact that hepatization of the lung may be produced by section of the vagus. Why may we not attribute the consolidation in this case to a lesion of the pneumogastric? If the engorgement was caused in this instance by a deranged vagus, why not in every case, the chill and fever depending entirely upon the extent to which the same causes influence the heat centre of the brain?

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The Minnesota Medical Act.

To the Editor:—In response to the suggestions of many of the profession, permit me to submit to your journal a brief résumé of the work accomplished by the State Board of Medical Examiners of Minnesota in the brief period of their existence, working under the provisions of the present State Medical Practice Act. These statistics are presented trusting they may direct the attention of the profession anew to the benefit to be derived by both the public and profession by efficient medical legislation, and trusting it may further stimulate the profession in securing, at the hands of the respective legislatures, now in session, such legislation as is required to protect both the public and profession. The present Act regulating the practice of medicine in Minnesota, became operative, July 1, 1887, and succeeded the old Act that had been in successful operation for a period of four and a-half years. The old Act was a verbatim copy of the present Illinois Act, excepting that the exemption clause was five years instead of ten, which is the period of exemption of the Illinois Act. Through the operations of the old Act the profession of the State had experienced some of the benefits of medical legislation, and was therefore disposed to aid and support the present Act in every way possible. The Minnesota Act has been inforced in a quiet, conscientious and determined manner by a board composed of the leading representative men of the profession of the State. The Act has received no mention by the medical press of the country, not-

withstanding it is the best Act of any State and is as ably enforced as any of the various State Medical Acts. The present board have held seven quarterly meetings, at which eighty-six physicians have applied to be examined. Of this number six were refused admission to the class, not having taken three full courses of medical lectures of six months duration each. Of the eighty entering the various examinations fifty-one were licensed. Some of this number underwent several quarterly examinations before being successful. Twenty-nine were rejected, not possessing the knowledge of Medicine required by the board. Of those who passed, forty-nine are Regulars and two Homœopaths. Of those failing to pass the examination, eighteen were Regulars, eight were Homœopathic, and only three were eclectic physicians. Those passing the examinations of the board were mostly graduates of McGill, Harvard, Chicago Medical, and the University of Michigan, Students who were graduates of the two-term schools and those having sessions of less than six months duration, are of course prohibited the privilege of practice in the State.

PERRY H. MILLARD, M.D.

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A Needle in the Heart.

To the Editor:—Noticing the article in the last JOURNAL, by Sara A. Kime, M.D., "The Migration of a Needle," calls to my mind a case that came under my own observation about twenty-eight years ago, in the village of Warsaw, Western New York, where I was then practicing.

I was called to attend Mr. T., æt. 20 years, who for many weeks had been suffering severe pain in the region of the heart, attended with violent palpitation upon making any considerable exertion. Not a moment passed, unless he was asleep, that he was not tormented with an indescribably oppressed feeling about the chest. The pulse was somewhat accelerated and irregular. I had the clothing removed from the chest, so that I could make a thorough examination by inspection, as well as by auscultation and percussion, and while passing my hand over the heart to ascertain the force of its impulse, I felt a little hardened elevation. It was not visible when looking at the chest, but it could be readily felt with the finger, or the flat surface of the hand pressed gently upon it, and moved upwards and downwards.

With a bistoury I incised the skin directly over it, and with a pair of forceps removed an ordinary sewing needle an inch and a half in length. All the unpleasant symptoms very soon subsided, and in a week or two my patient was quite as well as he had ever been.

From the location of the needle, and the attending symptoms, I was quite sure it had, for a time, found a resting place in the very substance of the heart itself.

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BOOK NOTICES.

A CLINICAL ATLAS OF VENEREAL AND SKIN DISEASES, INCLUDING DIAGNOSIS, PROGNOSIS AND TREATMENT. By ROBERT W. TAYLOR, A.M., M.D., Surgeon to Charity Hospital, New York, etc., etc. Philadelphia: Lea Brothers & Co. 1888. In eight parts. Price per part $2.50.

We have received the first four parts of this handsome work, which is published in a manner highly creditable to the well-known house of Lea Brothers & Co. The lithographs are executed by the Sinclairs, and it is needless to say are in the highest style of the art. The paper is superb, and the typography is exquisite.

There is no formal preface and the author commences part I by plunging directly into his subject. The publishers, however, have supplied a detached "prefaratory note" in which they say:

"As no clinic, however large, can furnish the necessary materials, the entire literature of the subjects has been searched for its best illustrations, and selections made with proper permission of living authors. These have been completed by numerous reproductions from a collection of original paintings from life, gathered by the Author during many years of practice."

The well-known views of Dr. Taylor on venereal diseases are set forth on these stately pages in a pleasant and straightforward manner; but there is one blemish in the first parts that we would gladly pass over, except that our duty to our readers requires that book notices in these columns shall be impartial and accurate. This blemish is the frequent occurrence of such phrases as this, on page 167: "For further particulars as to the use of preparations of iodine, see Bumstead and Taylor, page 875"—and again on the same page, "For full particulars of the method of using inunctions see Bumstead and Taylor on veneral diseases, page 861." These remarks seem to imply that the Atlas is intended as a companion to the work of Bumstead and Taylor, whereas, in fact it is intended to be, and really is, complete in itself.

The author of the atlas surely could not have intended to depreciate this later work, and we only regret that such a magnificent work should not contain all the author thinks the text requires to fully declare his meaning.

Dr. Taylor is extremely cautious in his prognoses, and his candor is commendable; thus in speaking of the etiology of acne simplex, he says: "The pivotal questions are, what causes the inflammation that precedes the formation of the plug?

And why is it so prone to appear at certain times of life? . . . when we know really so little it may seem unkind to taunt with ignorance those who think they know it all, but it will certainly be conceded by scientific men that such statements as, 'certain conditions may be justly charged' et cet., 'the relation is especially intimate,' 'such and such symptoms are not infrequent in those suffering from acne,' et cet., are really the barest platitudes."

The author is a safe guide to follow, and he has produced a work that is of lasting value. Pathological theories may indeed change, and the text require many modifications through the changes of time, but these faithful reproductions of conditions actually observed, will be accurate so long as human frailty exists, and its consequences are visited on the human species.

LECTURES TO PRACTITIONERS ON THE DISEASES OF THE KIDNEY AMENABLE TO SURGICAL TREATMENT. By DAVID NEWMAN, M.D., Surgeon to the Western Infirmary; Pathologist to and Lecturer on Pathology at the Glasgow Royal Infirmary, etc., etc. 8vo, cloth, pp. 472. London: Longmans, Green & Co. 1888. Chicago: A. C. McClurg & Co. Price, $5.50.

In these days of bold surgery this book is a very timely one. The author everywhere shows his thoroughly practical grasp of his subject, and if a perusal of its pages serves to cool the ardor of persons fond of operating, it at the same time gives good and sufficient reasons for the performance of certain operations and gives in detail the result of the author's observations.

The scope of the work is more extended than would be considered possible at first sight. It includes a discussion of the normal kidney and its relationships; malpositions; movable kidney; and floating kidney; and while the distinction is made clear between them, the author thinks it impossible to distinguish the movable from the floating kidney by physical examination. The general symptomatology of kidney disease is discussed in the second lecture, and then follow lectures on hydronephrosis, cystic disease, suppurative diseases of the kidney, infective new formations, injuries of the kidney and ureter, tumors and operations.

In regard to catheterization of the ureters the author says:

"To perform such a delicate operation by the sensation of touch alone is very difficult, and it is only by patient and prolonged practice on the dead subject that one can hope to succeed in performing the operation on the living, but once the art has been mastered it is easier to pass a catheter into the living ureter than a dead one. This may be done with or without the electric light. Early in 1883 I devised and used an electric endoscope and ureter catheters, and found that, when the bladder is well illuminated, the orifices of the ureters are easily seen as narrow, oblique, slit-like openings, about 2 inches apart from one another. These openings are situated at the posterior angles of the trigom, nearly 1½ inches from the inner orifice of the urethra, and are united by a curved elevation which, however, extends a little beyond them."

The author uses this combined endoscope and catheter, but admits that where the bladder wall has become greatly changed from disease, the operation is unreliable and unsatisfactory.

The book is well printed and is a very valuable addition to the library of the general practitioner as well as of the general surgeon, while for those practicing bladder and kidney surgery it is indispensable.

MISCELLANY.

THE BRITISH AND THE AMERICAN MEDICAL ASSOCIATION.—In an editorial, on the British Medical Association, in the *British Medical Journal*, of December 8, 1888, Mr. Hart calls attention to the fact that nearly one thousand new members have been enrolled during the past year, which means an increase of that many subscribers to the Association Journal, which has now reached the very handsome figure of fifteen thousand.

With more than sixty thousand regular physicians practicing in the United States, we should at least have for our own Association Journal as large, if not a larger circulation, than Mr. Hart has been able to secure for the *British Medical Journal*.

The financial condition of the British Medical Association may readily be appreciated from an examination of the balance sheet showing thirty-one thousand pounds sterling surplus in the Treasury. Notwithstanding the fact that many items of considerable expenditure were incurred the last year, embracing such items as the moving into the handsome new building on the Strand, the annual dues of members of the British Medical Association, which includes a copy of the Association Journal, are the same as in the American Medical Association. This Journal instead of being an incubus is, in fact, a source of handsome profit.

It is, therefore, plain that by good management of the affairs of our own National body, we shall soon be able to have our own building and printing presses for the publication of the Association Journal, and a handsome equipment for increasing the usefulness of the Association itself. There is now in the minds of many of the best men in the two countries, a sort of fraternal spirit of rivalry which may be noticed in all the Presidential addresses, in the reports of all the foreign delegations, and in the editorials of the official organs of the two great National bodies.—*Progress*, Jan., 1889.

The American Medical Association is a great National medical organization, and should have a permanent "habitat" in the city of the Capitol of the Nation. There the Association already has its library. There National aid could be secured for the erection of a permanent home for the library, for THE JOURNAL, and for the biennial meetings of the Association, as at present required by the by-laws.

Whether it is a wise provision to hold each alternate meeting in Washington appears to be a question admitting of some doubt in the minds of the members, as the law enacted by them appears not to be observed. Regardless of this, however, we believe frequent meetings in Washington would give great satisfaction, and permanent headquarters there would serve to give tone to and encourage enthusiasm in forwarding the growth and maintaining the influence of the American Medical Association.—*Memphis Medical Monthly*, Jan., 1889.

DURATION OF INCUBATION AND CONTAGIOUSNESS.—The Clinical Society of London have issued the following circular :

Sir :—Ten years ago the Clinical Society of London appointed a Committee to investigate the periods of incubation and of contagiousness of the commoner communicable diseases.

A certain amount of valuable material was received, but it was thought desirable to defer the presentation of a report until further experience was available. The Society has now determined to gather additional information with a view to the preparation of an early report on the subject, and for this purpose has reconstructed the Committee.

The Committee is desirous of obtaining particulars of cases which throw light upon the periods of incubation and contagiousness of the below-mentioned diseases, and will be grateful for notes of any cases where the facts can be ascertained with sufficient precision to afford grounds for conclusions.

It is thought that gentlemen practicing at a distance from large centers of population, and especially those engaged in the Public Health Service, or associated with schools, would be able to supply information of the kind required. A single case in which the dates of exposure to infection and the appearance of the first symptom can be accurately fixed, especially where the exposure has been limited in duration, would be highly valued.

The following diseases are included within the scope of the inquiry :

Variola.	Typhus.	Cholera.
Varicella.	Relapsing Fever.	Erysipelas.
Measles.	Whooping-cough.	Mumps.
German Measles.	Diphtheria.	Infectious Sore
Scarlet Fever.	Enteric Fever.	Throat.

The Committee consists of Dr. W. H. Broadbent, Dr. George Buchanan, Dr. Cayley, Dr. Thomas Barlow, Dr. Alfred Hill, Dr. Isambard Owen, Dr. Thorne Thorne, Dr. Alder Smith, and Mr. R. W. Parker, with Mr. Shirley Murphy, 41 Queen Anne St., and Dr. Dawson Williams, 25 Old Burlington St., W., as Honorary Secretaries, to one of whom communications should be addressed.

I am, etc.,
W. H. BROADBENT.
Clinical Society of London, Ch'rmn of Committee.
January, 1888.

PAMPHLETS RECEIVED.

Cochran, Jerome, M.D., State Health Officer of Alabama.. *Problems in Regard to Yellow Fever and the Prevention of Yellow Fever Epidemics.* Reprint from Trans. Am. Public Health Association. 1888.

Wimmer, Sebastian J., M.A., M.D., St. Mary's, Florida. *Improprieties of Dress an Important Etiological Factor in Many Diseases Peculiar to Women.* Reprint from Med. Reg. 1888.

Busey, Samuel C., M.D., Washington, D.C. *The Wrong of Craniotomy upon the Living Fœtus.* Reprint from Am. Jour. Obstetrics. 1889.

Reed, R. Harvey, M.D., Mansfield O. *Proceedings of the Fifth Annual Meeting of the Ohio State Sanitary Association.* 1888.

Dana, Charles L., A.M., M.D., New York. *The Cortical Localization of the Cutaneous Sensations.* Reprint from the Journal of Nervous and Mental Diseases. October, 1888.

Bailey, Steele, M.D., Stanford, Ky. *Minutes Kentucky State Medical Society,* July 11–13, 1888.

Taylor, Gov. Robert L., of Tennessee. *Message to the Forty-sixth General Assembly.* 1889.

Rutherford, R., M.D., Houston, Tex. *Report of Texas Quarantine for 1887–8.* 1889.

Gehrung, Eugene C., M.D., St. Louis. *Electrolysis; Its Value in Diagnosis as well as in Treatment of Intra-Abdominal and Intra-Pelvic Tumors by the Aid of a New Instrument.* Reprint from Amer. Jour. Obst., etc. August, 1888.

LETTERS RECEIVED.

J. Walter Thompson, New York; R. W. Gardner, New York; Jerome Kidder Mfg. Co., New York; Thos. Leeming & Co., New York; J. P. Crawford, M.D., Davenport, Ia.; J. R. Browne, M.D., Mottville, N. Y.; C. B. Kibler, M.D., Corry, Pa.; H. C. Markham, M.D., Independence, Ia.; Edward F. Wells, M.D., Shelbyville, Ind.; Addinell Hewson, M.D., Philadelphia, Pa.; Chr. E. A. Gronbech, New York; Geo. Poggenburg, New York; J. F. Rowley, Des Moines, Ia.; W. P. Cleary, New York; L. Barta & Co., Boston, Mass.; W. May Rew, M.D., Poughkeepsie, N. Y.; James Vick, Rochester, N. Y.; R. W. Gardner, New York; L. H. Dunning, M.D., South Bend, Ind.; Miss A. V. Pollard, Louisville, Ky.; R. T. Henderson, M.D., Jackson, Mo.; A. Ahlborn, M.D., Detroit, Mich.; John B. Roberts, M.D., Philadelphia, Pa.; S. C. McCormick, M.D., Duluth, Minn.; F. R. Reynolds, M.D., Menomonie, Wis.; Charles W. Evans, M.D., Chicago, Ill.; J. R. Cockroft, Esq., Chicago, Ill.; C. L. Fox, M.D., Kingsville, O.; H. G. Buckingham, M.D., Clayton, N. J.; Harold N. Moyer, M.D., Chicago, Ill.; A. F. Walter, M.D., Gladbrook, Ia.; E. Dolan, P.M., Troy, N. Y.; F. H. Boucher, M.D., Marshalltown, Ia.; Thomas Linn, M.D., Paris, France; R. J. Dunglison, M.D., Philadelphia, Pa.; Mary Hayden, Freeport, Ill.; H. Judd, M.D., Galesburg, Ill.; S. P. Deahofe, M.D., Potsdam, O.; J. P. Cook, Esq., Kenton, O.; Llewellyn Eliot, M.D., Washington; R. C. Jones, M.D., Cincinnati, O.; Howard W. Quick, M.D., Burton, O.; Geo. T. Trezevant, M.D., Abilene, Texas; Jno. S. Coleman, M.D., Augusta, Ga.; John C. Lawver, Esq., Jersey City, N. J.; Wm. Harsha, M.D., Decatur, Ill.; Eugene Way, M.D., Dennisville, N. J.; Samuel B. Rowe, M.D., Rolla, Mo.; Thad. A. Reamy, M.D., Cincinnati, O.; Mr. Burr Witchell, Vermont, Ill.; T. H. McCormick, M.D., Ft. Wayne, Ind.; G. W. H. Kemper, M.D., Muncie, Ind.; W. O. Anderson, M.D., Eureka, Cal.; Chas. W. Hitchcock, M.D., Kalamazoo, Mich.; Mr. Samuel Wright, Columbia, Pa.; Frank W. Garber, M.D., Muskegon, Mich.; E. S. McKee, M.D., Cincinnati, O.; H. Augustus Wilson, M.D., Philadelphia, Pa.; P. O. Hooper, M.D., Little Rock, Ark.; W. W. Dawson, M.D., Cincinnati, O.; W. A. Kane King, M.D., Carthage, Mo.; A. N. Bell, A.M., M.D., Brooklyn, N. Y.; T. Wertz, M.D., Jasper, Ind.; Wm. B. DeWees, M.D., Salina, Kan.; Mr. S. W. Allen, Lowell, Mass.; John P. Stoddard, M.D., Muskegon, Mich.; B. Westermann & Co., New York ; C. A. Foulks, M.D., Argentine, Ks.; J. M. Toner, M.D., Washington.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine-Hospital Service, for the Five Weeks Ending January 26, 1889.

P. A. Surgeon W. A. Wheeler, when relieved at Buffalo, N. Y., to proceed to Cleveland, O., and assume charge of the Service. January 3, 1889.

P. A. Surgeon F. M. Urquhart, to proceed to Buffalo, N. Y., and assume charge of the Service. January 3, 1889. Placed on waiting orders, on account of sickness, January 12, 1889.

P. A. Surgeon P. M. Carrington, granted leave of absence for thirty days. January 25, 1889.

P. A. Surgeon L. L. Williams, granted leave of absence for fifteen days. December 26, 1888.

Asst. Surgeon W. J. Pettus, ordered to examination for promotion. January 15, 1889.

Asst. Surgeon G. M. Magruder, to proceed to Louisville, Ky., for temporary duty. January 22, 1889.

Asst. Surgeon J. J. Kinyoun, to proceed to Baltimore, Md., for temporary duty. December 29, 1888.

Asst. Surgeon A. W. Condict, granted leave of absence for thirty days. January 25, 1889.